Joint Doctrine Encyclopedia

16 July 1997

A

ACCEPTABILITY

Operation plan review criterion. The determination whether the contemplated course of action is worth the cost in manpower, material, and time involved; is consistent with the law of war; and militarily and politically supportable. JP 1-02

Acceptability is one of the four joint operation plan review criteria. Acceptable plans are proportional and worth the anticipated cost. They provide for accomplishment of the mission with available resources without incurring excessive losses in personnel, equipment, materiel, time, or position. They are consistent with the law of war and are militarily and politically supportable.

Related Terms

adequacy; compliance with joint doctrine; completeness; feasibility; operation plan

Source Joint Publications

JP 5-0	Doctrine for Planning Joint Operations
JP 5-03.1	Joint Operation Planning and Execution System, Vol I: (Planning Policies and Procedures)

ACCURACY

Accuracy is one of the seven attributes of intelligence quality. Intelligence must be factually correct, convey an appreciation for facts and the situation as they exist, and estimate future situations and courses of adversary action based on those facts and sound judgment.

It is not enough that intelligence is true; to be accurate it should also describe what is known of the situation. The attributes of complete, timely, and relevant intelligence bear on accuracy. If requirements are not accurately developed, intelligence products will probably be unsuitable for the operation.

Objectivity of intelligence also bears on accuracy. If the intelligence product is skewed by institutional or personal bias in collection, analysis, or dissemination, the resulting erroneous or incomplete portrayals of situations may foster erroneous operational decisions. Although the intelligence presented may be true or accurate in an absolute factual sense, it may fail the accuracy test by the omission of data and perspectives necessary for a complete understanding of the situation.

Related Terms

completeness; objectivity; readiness; relevance; timeliness; usability

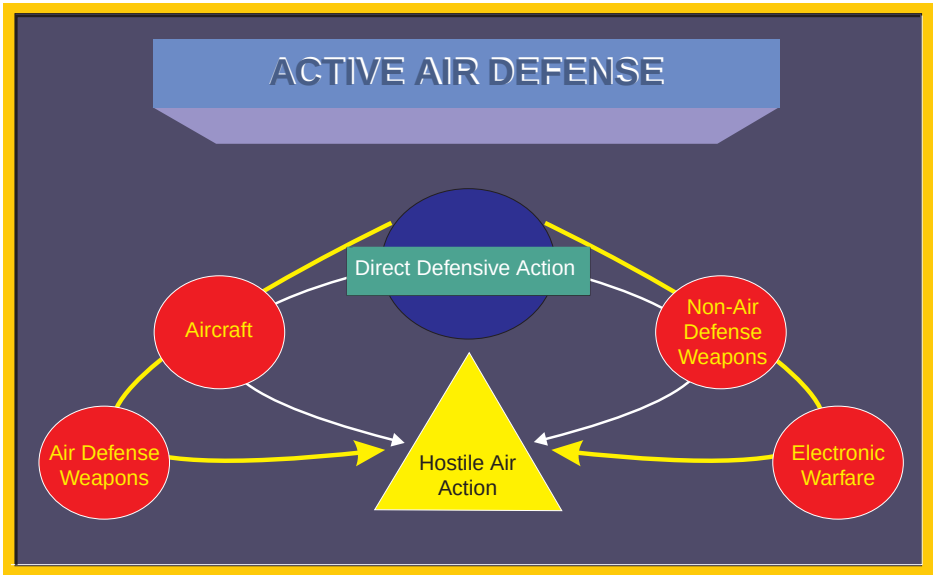
Source Joint Publications

JP 2-0	Joint Doctrine for Intelligence Support to Operations

ACTIVE AIR DEFENSE

Direct defensive action taken to nullify or reduce the effectiveness of hostile air action. It includes such measures as the use of aircraft, air defense weapons, weapons not used primarily in an air defense role, and electronic warfare. JP 1-02

General. Active air defense (see figure below) degrades the effectiveness of enemy air attacks and protects friendly forces. Integrated employment of air-to-air and surface-to-air systems through coordinated detection, identification, assessment, and engagement of enemy forces is necessary to blunt the enemy attack and protect friendly air and surface forces. Airspace control in an active air defense environment can be extremely difficult but is crucial to successful friendly air operations and effective air defense. Positive control or procedural measures must be implemented to ensure that friendly aircraft can safely transit the airspace without inhibiting air defense or other friendly air operations. Regardless of other controls and measures imposed within defended airspace, air defense forces must be able to identify all aircraft in the area readily by electronic, visual, or procedural means. Rapid, reliable, and secure means of identification, implemented within air defense areas, is critical to the survival of friendly aircraft as well as to the effectiveness of air defense.



Methods of Air Defense. Various options for the organization of air defense resources provide effective air defense for the joint force.

Area Defense. A posture designed for the defense of a broad area. There can be specialized applications of area defense when friendly assets to be protected are spread over a large geographical area with defined threat boundaries. An example would be the belt defense used in the North Atlantic Treaty Organization.

Point Defense. A posture designed for the protection of a limited area, normally in defense of the vital elements of a force and of vital installations.

Self-Defense. A posture developed by friendly units to defend themselves against direct attack or threat of attack through the use of organic weapons and electronic warfare.

Maritime Air Defense. Maritime air defense is essentially offensive in nature and may encompass characteristics of all of the other three methods of air defense. Maritime air defense is conducted simultaneously with other naval warfare tasks including antisubmarine warfare, strike warfare, etc. Maritime air defense requires the establishment of mutually supporting defense positions to absorb and weaken the enemy attack progressively and is a function of detection range as well as the speed and responsiveness of weapon systems.

Resources. Dedicated air defense assets may be provided by all components and may include or be supported by space assets. Resources of the active air defense system may include the systems described below.

Weapon Systems. All systems have limitations such as reaction time, range, identification capability, and flexibility of operation. Closer examination of individual systems shows that the disadvantages of one are often balanced by the advantages of another; therefore, an effective active air defense requires a mix of weapon types and systems. This balance is required not only between aircraft and surface-to-air weapons but also between the specific types of aircraft, missiles, and antiaircraft artillery.

Surface Air Defense Systems. All air defense agencies and sensors should be integrated to provide an effective surface environment system. This can be accomplished through the use of direct control or procedural control. Efficient, direct control of air defense resources relies on the provision and exchange of essential real time information. The exchange of real-time information requires the provision of adequate track capacity within systems and the cross-telling of tracks using data processing systems, including space-based assets. Secure, survivable communications systems to connect the control agencies are essential. In addition, the surface environment system itself should be survivable and have redundancy. To provide the spectrum of cover required for air defense operations, a number of complementary systems are necessary. These range from a mix of static and mobile equipment to strategic warning systems. Systems should be netted to enable the gathering and dissemination of information under all operational conditions and to provide mutual support. The surface environment may include early warning and surveillance systems; other netted civil and military sensors; low-level radar systems; mobile radars, including sea-based systems; strategic warning systems; identification systems; early warning systems; communications systems; and data processing facilities.

Related Terms

air defense; airspace control in the combat zone; area air defense commander; joint force air component commander

Source Joint Publications

JP 3-01.2 Joint Doctrine for Theater Counterair Operations

ACTIVE DEFENSE (Theater Missile Defense)

General. Active defense applies to operations initiated to protect against a theater missile (TM) attack by destroying TM airborne launch platforms and/or destroying TMs in flight. Active defense includes multitiered defense indepth via multiple engagements using air, land, sea, space, and special operations assets. It also includes active electronic warfare (EW) to disrupt remote or onboard guidance systems.

Active defense must consist of defense indepth against all classes of TMs to include ballistic and cruise missiles. When destruction of the TM launch platform prior to launch is not possible or successful, TMs should be engaged by all means available throughout their entire flight profile. Defense indepth provides multiple opportunities to negate the TMs with differing capabilities, increases probability of kill, and prohibits the enemy from being able to counter the defensive system with a single technique. Active defense also include those actions which mitigate the effectiveness of targeting and delivery systems through EW against remote or onboard guidance systems.

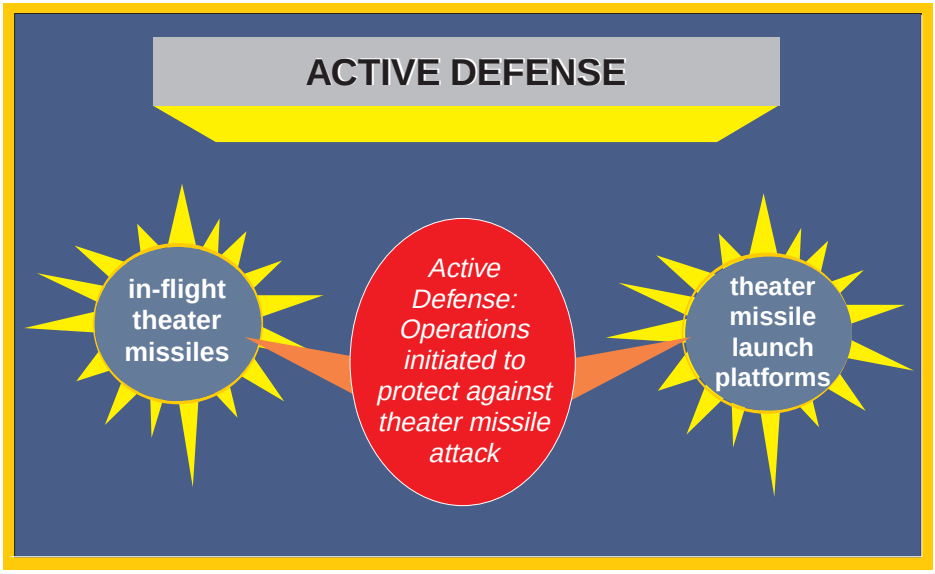
Command and Control. The joint force commander (JFC) exercises control of active defense operations by integration of joint theater missile defense (JTMD) systems and forces

into the command, control, communications, computers and intelligence (C4I) systems supporting theater air defense. The JFC normally assigns overall responsibility for air defense, to include active defense theater missile defense, to the area air defense commander (AADC). The AADC assists the JFC in determining missions, communications priorities, and rules of engagement (ROE) for active defense forces, based on assessment and prioritization of forces, critical assets, and population centers. Active defense forces are under the operational control of their component commanders, who employ these forces under the weapons control procedures and measures established by the AADC and approved by the JFC.

Effective control of active defense weapon systems requires a capability to provide continuous wide-area surveillance of the AOR, with emphasis on likely missile launch areas. A confirmed launch triggers reactions by a preplanned selection of appropriate defensive systems, in accordance with established ROE. Short missile flight times require that available air-, land-, sea-, and space-based sensor and surveillance assets reports be integrated to provide a complete and current air and space picture. Space-based systems should be responsive to the joint or combined force commander. The C4I systems supporting theater air defense should provide for centralized coordination and decentralized execution of active defense operations.

Planning. Active defense planning begins with intelligence preparation of the battlespace. Upon completing initial analyses, the JFC provides the concept of operation and mission priorities. The commander finalizes decisions on apportionment of JTMD resources after the staff completes its comparison and analyses of the various courses of action and the component commanders have given their input. Intelligence requirements are identified and collection management priorities established for TM detection, acquisition, and identification. Threat priorities and ROE are established for engaging both enemy aircraft and missiles. Forces are designated to protect critical theater assets; e.g., forces, air bases, seaports, population centers, and fleet operating areas.

Execution. Active defense operations should be centrally coordinated and decentrally executed. Based upon unconfirmed launch indicators, United States Space Command may be capable of providing initial warning reports. These reports could be used by the JFC to initiate certain passive defense measures and provide initial cuing to active defense forces.



An enemy launch observed and identified through national, theater, or tactical surveillance systems triggers active defense and attack operations, along with initiating passive defense measures by military units and civilian authorities. (See figure above.)

Area systems, such as some surface-to-air missile systems or interceptors, provide defense indepth by attacking TMs at long ranges. Engaging missiles early in flight permits multiple engagements by the area and point defense systems and minimizes ground damage to friendly forces and infrastructure from missile and warhead debris. Active electronic countermeasures systems also can deceive TM guidance systems late in flight.

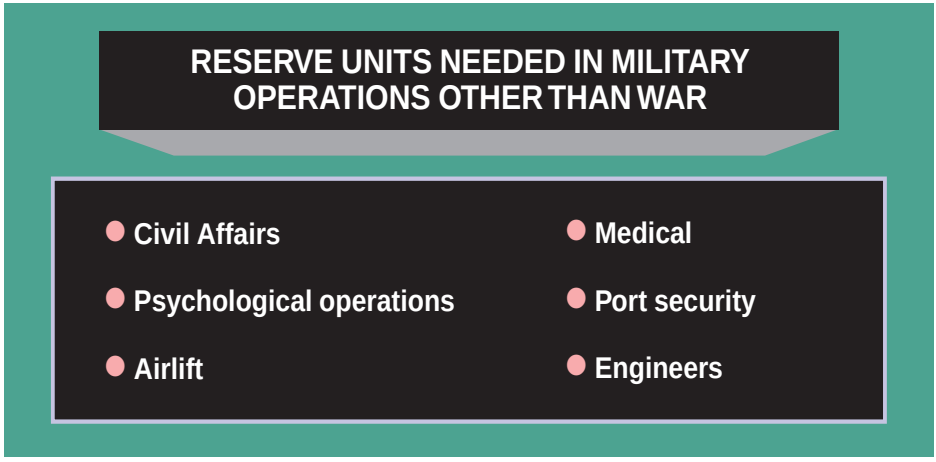
Related Terms

Source Joint Publications

JP 3-01.5 Doctrine for Joint Theater Missile Defense

ACTIVE/RESERVE MIX

Military operations other than war may require units and individuals not found in the active component or may require deployment of more units or individuals possessing a capability than are available in the active component. Examples of these types of units are shown in the figure below. Mobilization of any reserve component units may be difficult if war is not imminent or declared. Consequently, most reserve component participation will be through volunteer support. To take advantage of volunteers, planners should select roles and tasks for reserve forces that can be supported by a rotational force — tour requirements in excess of three weeks will discourage and limit volunteers. If time permits, planners should determine what reserve component capabilities are required, and how long it will take for the units to be trained and ready for deployment. Planners should also review personnel and equipment authorizations for reserve component units to ensure compatibility with active forces. For example, a reserve unit equipped with commercial cargo vehicles would not be able to operate as well in rough terrain as an active unit equipped with tactical vehicles. On the other hand, use of active forces, especially in functional areas heavily reliant on the reserve component, may impact on those forces' ability to respond to their wartime taskings in the near term because of the time needed to redeploy and repair or replace equipment.



Related Terms

Source Joint Publications

JP 3-07	Joint Doctrine for Military Operations Other Than War

ADEQUACY

Operation plan review criterion. The determination whether the scope and concept of a planned operation are sufficient to accomplish the task assigned. JP 1-02

Adequacy is one of the four joint operation plan review criteria. Adequacy determines whether the scope and concept of planned operations satisfy the tasking and will accomplish the mission. Planning assumptions should provide guidelines for the development of the plan to increase the effectiveness of the concept of operations. These assumptions must be reasonable and consistent with strategic guidance.

Related Terms

acceptability; compliance with joint doctrine; feasibility; operation plan

Source Joint Publications

JP 5-0	Doctrine for Planning Joint Operations
JP 5-03.1	Joint Operation Planning and Execution System, Vol I: (Planning Policies and Procedures)

ADMINISTRATIVE CONTROL

Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. Also called ADCON. JP 1-02

Administrative control (ADCON) is the direction or exercise of authority over subordinate or other organizations in respect to administration and support including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, and discipline and other matters not included in the operational missions of the subordinate or other organizations. ADCON is synonymous with administration and support responsibilities identified in title 10, US Code. This is the authority necessary to fulfill Military Department statutory responsibilities for administration and support. ADCON may be delegated to and exercised by commanders of Service forces assigned to a combatant commander at any echelon at or below the level of Service component command. ADCON is subject to the command authority of combatant commanders.

Related Terms

combatant command (command authority); command; control; operational control; tactical control

Source Joint Publications

JP 0-2	Unified Action Armed Forces (UNAAF)
JP 3-0	Doctrine for Joint Operations

ADMINISTRATIVE LOADING

A loading system which gives primary consideration to achieving maximum utilization of troop and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used. Also called commercial loading. JP 1-02

Administrative Loading of Ships During Amphibious Operations. Administrative loading is defined as a loading method that gives primary consideration to achieving maximum use of billeting and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used. Administrative loading is not suitable for amphibious assault operations.

Administrative Loading of Airlift Aircraft. Administrative loading gives primary consideration to achieving maximum use of aircraft passenger and cargo capacities, without regard to ground force tactical considerations. Administrative-loaded materiel usually requires unloading and sorting before it is used. Administrative loading maximizes the use of the volumes and weight capacities of airlift aircraft, their allowable cabin load, while combat loading maximizes the combat readiness of the organizations and equipment being moved.

Related Terms

Source Joint Publications

JP 3-02.2	Joint Doctrine for Amphibious Embarkation
JP 3-17	JTTP for Theater Airlift Operations

ADVANCED OPERATIONS BASE

In special operations, a small temporary base established near or within a joint special operations area to command, control, and/or support training or tactical operations. Facilities are normally austere. The base may be ashore or afloat. If ashore, it may include an airfield or unimproved airstrip, a pier, or an anchorage. An advanced operations base is normally controlled and/or supported by a main operations base or a forward operations base. Also called AOB. JP 1-02

An advanced operations base (AOB) is a small temporary base established near or within a joint special operations area to command, control, and/or support training or tactical operations. Facilities are normally austere. The base may be ashore or afloat. If ashore, it may include an airfield or unimproved airstrip, a pier, or an anchorage. An AOB is normally the location of a special operation force company or smaller element controlled and/or supported by an main operations base or forward operations base (FOB). An AOB is established by an special forces company to extend the command, control, and support

functions of an FOB. For example, an AOB may function as a launch-and-recovery or radio relay site.

Related Terms

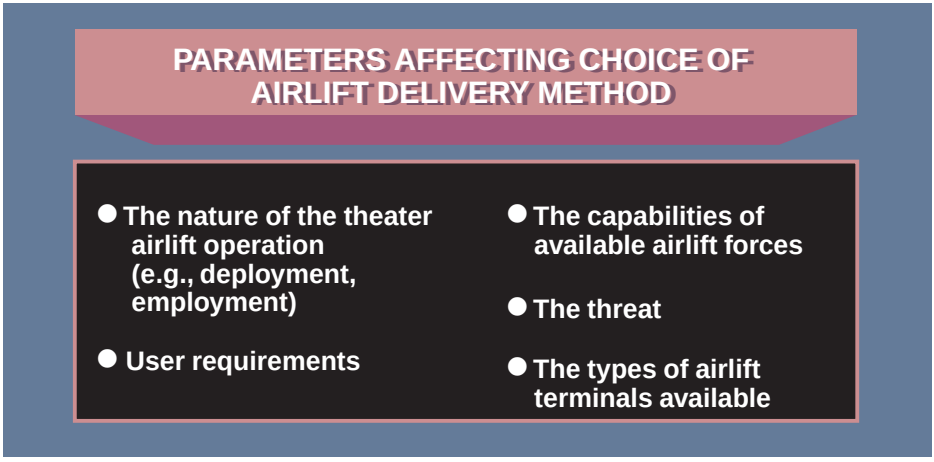
forward operations base; main operations base

Source Joint Publications

JP 3-05.3 Joint Special Operations Operational Procedures

AERIAL DELIVERY

Aerial delivery is one of the two basic methods of airlift delivery, the other being airland delivery. Because each offers a particular set of advantages and disadvantages to airlift users and providers, selecting the best method of delivery for a particular airlift requirement is a key planning decision. (See figure below.) The different methods of airlift delivery form a complementary system that can deliver at least some of a unit's equipment requirements, and virtually all of its personnel and sustainment materiel requirements at any time under most conditions of terrain and weather.



In the various aerial delivery methods, airlifted personnel and materiel are disembarked or unloaded from aircraft still in flight. Aerial delivery is often militarily advantageous, because it permits sustainment deliveries to units operating away from airfields and landing zones, permits the delivery of combat forces and materiel, concentrated and in mass, in minimum space and time, and some airlift aircraft can accurately airdrop personnel and materiel in conditions of poor visibility that would otherwise preclude airland operations (e.g., using the adverse weather aerial delivery system).

In relation to airland delivery, aerial delivery has several disadvantages. It carries an increased risk of injury to personnel or damage to cargo, requires special training for the riggers, transported personnel, and the aircrews, can limit allowable cabin load utilization substantially because of the special rigging required for airdropped materiel, has ground wind limitations, and if employed by a large formation, represents an operational level risk, because detection and successful attack by the enemy could rob the theater campaign of two critical assets: the airlift force and the unit and/or materiel being carried. Accordingly, the decision to utilize the aerial delivery method is predicated on determining whether a user's requirements justify the expenditure of scarce and costly airdrop resources.

Mass aerial delivery of forces requires large, unobstructed drop zone areas from which the forces can effect a rapid assembly and reorganization.

"Five thousand balloons, capable of raising two men each, could not cost more than five ships of the line; and where is the prince who can afford so to cover his country with troops for its defense as that 10,000 men descending from the clouds might not in many places do an infinite deal of mischief before a force could be brought together to repel them."

Benjamin Franklin Letter to Jan Ingenhousz, 1784

Related Terms

airland delivery; theater airlift

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AEROMEDICAL EVACUATION

The movement of patients under medical supervision to and between medical treatment facilities by air transportation. JP 1-02

Aeromedical evacuation is the movement of patients under medical supervision to and between medical treatment facilities by air transportation. As shown in the figure below, the worldwide aeromedical evacuation system operates in the continental United States (CONUS), between the theater and CONUS, and within the theater. Tactical aeromedical evacuation from the combat zone (Echelon III) to the communications zone (Echelon IV) is normally a responsibility of the supporting theater Air Force component commander. Patient evacuation from the theater is the responsibility of US Commander in Chief, Transportation Command, who is responsible for establishing, operating, training, and maintaining the common-user aeromedical evacuation system worldwide. This mission is executed by the Air Mobility Command.

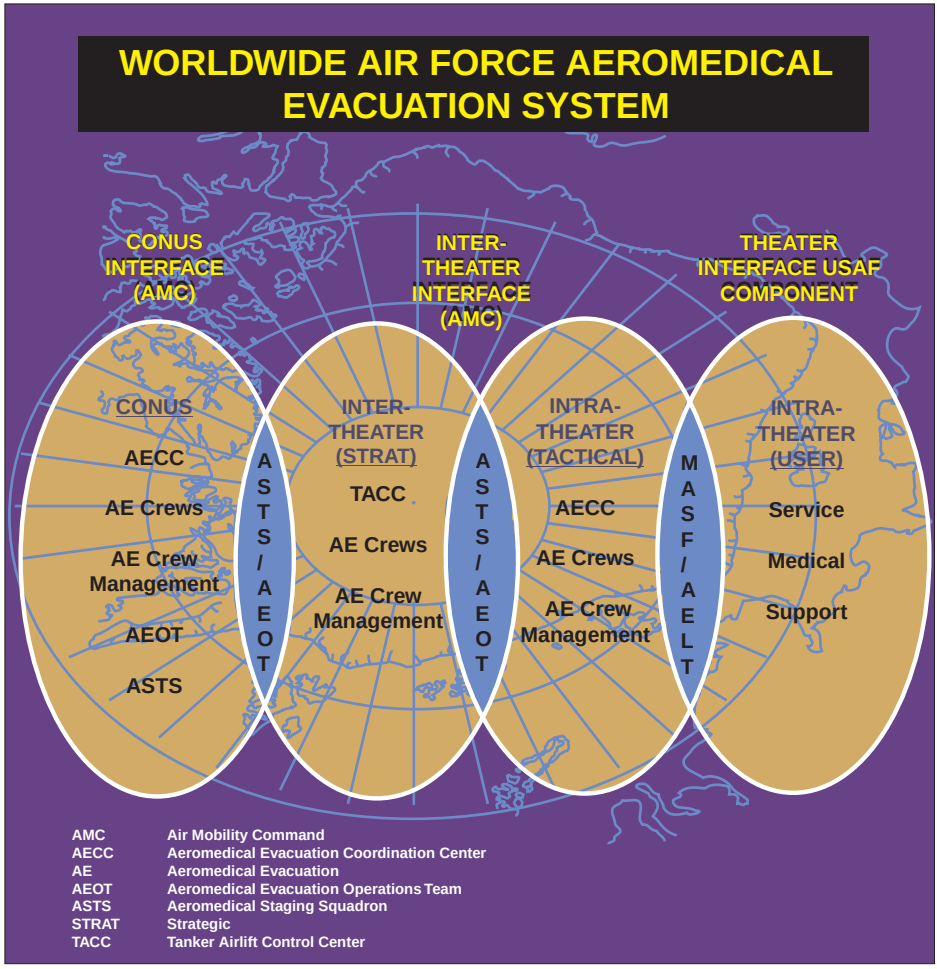
The C-9 is the mainstay of the domestic Aeromedical Evacuation System.

Vietnam: From the Field to the Hospital

Field evacuation and hospitalization of wounded in Vietnam was different from any previously carried out in any war. In addition it varied both in time and place within Vietnam. It was characterized by the absence of front lines and the traditional chain of evacuation. In general, the wounded Soldier was apt to receive his wounds while with a small group or unit isolated deep in roadless jungle, and the wounds were more apt to be multiple over all parts of the body than in any previous war. First aid and emergency medical treatment given on the site by company aid men, however, differed little from previous times. Resuscitative equipment and procedures included pressure dressings, tourniquets, and airways. Morphine was available but seldom used, as pain was not usually a problem at this point and aid men were aware of the depressant effects of morphine. In all likelihood, the patient would be evacuated within a relatively few minutes by helicopter, either a medical ambulance craft or a tactical one. The facilities available for resuscitation aboard the helicopter varied depending on whether it was a medical ("dust-off") helicopter or a combat helicopter. IV fluid, usually Ringer's Lactate solution, was often available, and trained medical technicians and emergency equipment were also present on dust-off helicopters.

The destinations of the helicopters varied. In some areas patients were taken to aid stations or medical companies. More often the helicopter flew the patients directly to a surgical hospital where they could receive definitive care. Blood and electrolyte solutions were often available at aid stations and medical and clearing companies, as was some surgical capability. Complete surgical facilities, including anesthetists, were available at clearing companies, but definitive surgery was usually not done here. At times battalion surgeons flew forward to a site of combat, bringing blood and other supplies which were given on the spot.

Hospitals fulfilled much the same function for combat wounded, whether they were surgical hospitals, field hospitals, or evacuation hospitals. By and large



they were all "semipermanent," usually buildings set on a concrete floor, air-conditioned and with all utilities and other equipment of a first-rate hospital in the continental United States.

Resuscitation of a Vietnam war casualty was an extremely rapid and sophisticated procedure. The patient would often be brought to the hospital directly from the battlefield by medical evacuation helicopter, frequently in less than an hour. Usually he received emergency treatment on the battlefield, to include control of hemorrhage, wound dressing, respiratory control, and often the starting of intravenous fluid. At the hospital, he was immediately taken to the resuscitation area where he was surrounded by a large team of highly trained physicians, nurses, and technicians.

The results of this prompt and efficient treatment may perhaps be best illustrated by comparing them with similar statistics from previous wars. In Vietnam, 46,000 of 346,000, or 13 percent, of all wounded American Soldiers died. If 22 percent had died, as was true in Korea, there would have been

77,840 deaths, 31,840 more than actually occurred. In World War II, 28 percent of all wounded American Soldiers died. If the medical treatment of Vietnam had been available during World War II, 117,748 Soldiers would have been saved.

Source: Hardaway, Robert M., M.D., Care of the Wounded in Vietnam, Manhattan, KS: Sunflower University Press, 1988, 1-14

Medical care is furnished during aeromedical evacuation.

Related Terms

echelons of care; evacuation policy; health service support; patient evacuation

Source Joint Publications

JP 4-02	Doctrine for Health Service Support in Joint Operations
JP 4-02.2	JTTP for Patient Movement in Joint Operations

AGILITY

Agility is one of the fundamentals of joint warfare. Agility, the ability to move quickly and easily, should characterize our operations. Agility is relative; the aim is to be more agile than the foe. Agility is not primarily concerned with speed itself, but about timeliness: thinking, planning, communicating, and acting faster than the enemy can effectively react. Operating on a more accelerated time scale than the enemy's can expand our options while denying opponents options that they deem important.

"The true speed of war is...the unremitting energy which wastes no time."

Rear Admiral Alfred Thayer Mahan

Agility has different perspectives based on the level of war (strategic, operational, or tactical). At each of these levels, operations on land and sea, undersea, and in the air and space must achieve a synchronized timing and rapid tempo that overmatch the opponent.

Strategic agility requires properly focused logistic support and a smoothly functioning defense transportation system. Forward-deployed forces, prepositioning, and the ability to deploy forces rapidly from the United States, and redeploy them as necessary within and between theaters, also enhance strategic agility.

The interaction of air, land, and sea forces contributes powerfully to operational agility, as shown by the example of the Solomon Islands campaigns provided below. The ability to integrate and exploit the various capabilities of a joint force can disorient an enemy who is weak in one or more of the dimensions of warfare, helping to create a mismatch between what the foe anticipates and what actually occurs. This mismatch can lead to shock, panic, and demoralization, especially in the minds of the enemy leadership.

Joint Campaigning in the Solomons, 1942-1943

The struggle for control of the Solomon Islands was a critical turning point in the war against Japan. These campaigns can best be appreciated as a sequence of interacting naval, land, and air operations.

Operations began with the August, 1942 amphibious landings at Guadalcanal, an audacious stroke to eliminate the threat posed by a potential Japanese air base on that island to the Allied air and sea lines of communication with Australia. During the next several months, under the tenacious leadership of General Alexander A. Vandegrift, USMC, Marine and later Army units fought a series of desperate land battles to defend Henderson Field, the captured airfield on Guadalcanal. During the same period US Navy and Allied naval forces fought six grueling surface actions, finally thwarting the Japanese naval bombardment that had so punished the land and air forces ashore. From Henderson Field flew a unique air force: Marine, Navy, and Army Air Forces planes under a single air command, the "Cactus Air Force." (CACTUS was the codeword for Guadalcanal.) In the words of Rear Admiral Samuel Eliot Morison, "If it had wings it flew; if it flew it fought...."1

"For control of a patch of ocean...Marines clung doggedly to an inland ridge, for a ground victory weeks in the future pilots nursed aloft their worn-out aircraft against all odds, and for possession of their landing field warships miles distant pounded at one another in darkness fitfully lit by searchlights, gunfire, and flaming wreckage. No episode in World War II better illustrates than Guadalcanal the interdependence of the Services that is characteristic of "modern war." Any one of the military arms of land, sea, or sky could have thrown away the issue; none alone could gain it."2

In February 1943 the Japanese evacuated Guadalcanal. The Allies undertook a sequence of actions to capture the remaining Solomons and isolate the huge Japanese base at Rabaul. Local air superiority enabled naval surface forces to shield amphibious landings from enemy surface ships and submarines; land forces once ashore seized and built airfields; from these airfields air forces assisted in their defense and extended air cover to shield further naval advance; and then the cycle repeated. The Cactus Air Force grew into Air Solomons

Command, a remarkably effective joint and combined air organization led in turn by Marine, Navy, and Army Air Forces commanders.

1. Rear Admiral Samuel E. Morison, *The Struggle for Guadalcanal* (Boston: Atlantic Monthly Press, 1949), 74.
2. Eric Larrabee, *Commander in Chief* (New York: Harper & Row, 1987), 261.

Related Terms

Source Joint Publications

JP 1 Joint Warfare of the Armed Forces of the United States

AIR CORRIDOR

A restricted air route of travel specified for use by friendly aircraft and established for the purpose of preventing friendly aircraft from being fired on by friendly forces. JP 1-02

An air corridor is a procedural airspace control measure. It is a restricted air route of travel specified for use by friendly (primarily Army) aircraft and established to prevent friendly forces from firing on friendly aircraft. Air corridor procedures are used to route aviation combat elements between such areas as forward arming and refueling points, holding areas, and battle positions. Altitudes of an air corridor do not exceed the coordinating altitude, if established.

If a coordinating altitude has been established, an air corridor is implemented by the using authority. If a coordinating altitude has not been established, an air corridor is established by the airspace control authority at the request of the appropriate ground commander.

Related Terms

air defense; base defense; coordinating altitude; fighter engagement zone; high altitude missile engagement zone, high-density airspace control zone, joint engagement zone, low-altitude missile engagement zone; positive identification radar advisory zone; restricted operations area; short range air defense engagement zone; weapons engagement zone

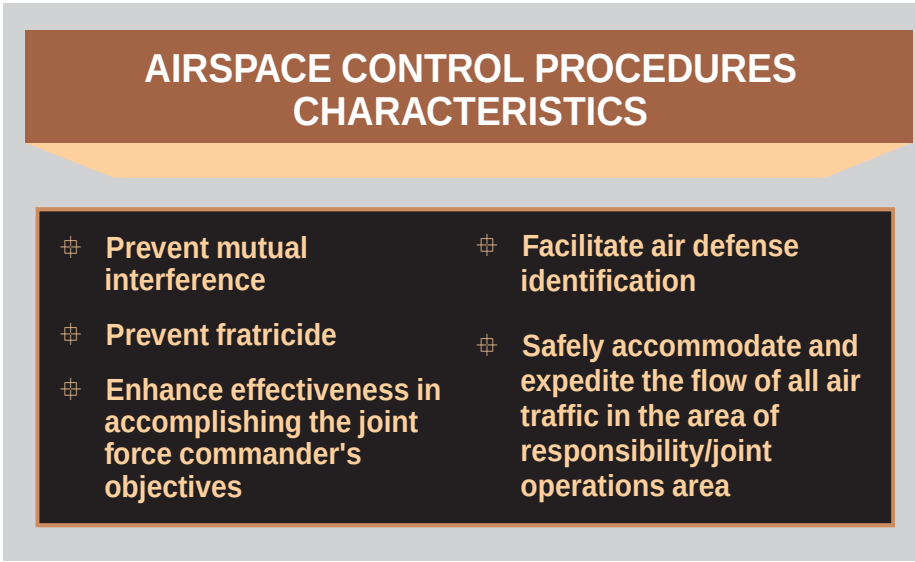
Source Joint Publications

JP 3-52 Doctrine for Joint Airspace Control in the Combat Zone

AIR DEFENSE

All defensive measures designed to destroy attacking enemy aircraft or missiles in the Earth's envelope of atmosphere, or to nullify or reduce the effectiveness of such attack. JP 1-02

Integration of Combat Zone Airspace Control and Air Defense Operations. Because these two areas would conflict and interfere with each other if operating independently, prioritization and integration of each mission is essential. Ultimately, the airspace control function must be performed in close conformity with air defense operations. Airspace control procedures will be used to assist in aircraft identification, facilitate engagement of enemy aircraft, and provide safe passage of friendly aircraft.



Air defense units must be free to engage hostile aircraft within prescribed rules of engagement. However, procedures may need to be established within the combat zone airspace control system to allow identification of friendly aircraft, not cause delays in offensive operations, and prevent fratricide. These procedures need to be simple to execute for both aircrews and ground operations personnel and may include visual, electronic, geographic, and/or maneuver means for sorting friend from foe. Air defense operations should not cause delays in air operations by creating an unnecessarily complicated or lengthy air route structure. Likewise, airspace control measures should not unduly restrain surface-to- air weapons systems so as to put them at increased risk of enemy air attack. Characteristics of procedures used to deconflict in time and space, coordinate and integrate the activities of all users of airspace (including fixed- and rotary-winged aircraft) are shown in the figure above.

Air defense systems might be overwhelmed by massed enemy attacks across limited geographic areas along the front. Therefore, highly flexible airspace control procedures need to be devised to anticipate the perceived threat. The procedures should allow coordinated employment of air and land or maritime air defense systems against the threat and use the inherent flexibility of air defense airborne platforms to mass forces to meet the enemy attackers. However, the problem of separating friendly and enemy aircraft during the heat of battle and employing land- or maritime-based air defenses against these enemy elements is a highly complex task.

Related Terms

active air defense; passive air defense

Source Joint Publications

JP 3-52 Doctrine for Joint Airspace Control in the Combat Zone

AIRDROP

The unloading of personnel or materiel from aircraft in flight. JP 1-02

General. The airdrop system should be designed to be responsive in supporting requirements. Airdrop resupply is a joint action between the Air Force component and the

component being supported. Supported components are responsible for providing required supplies, rigging them for airdrop, and delivering them to the departure airfield. The supported component is also responsible for loading the supplies onto the airdrop aircraft under supervision of Air Force personnel.

Units requesting airdrop resupply have responsibilities to accomplish both before and after submission of airdrop requests. Before submitting requests, units determine the supplies and equipment needed, location of drop zone, and time and date airdrop is desired.

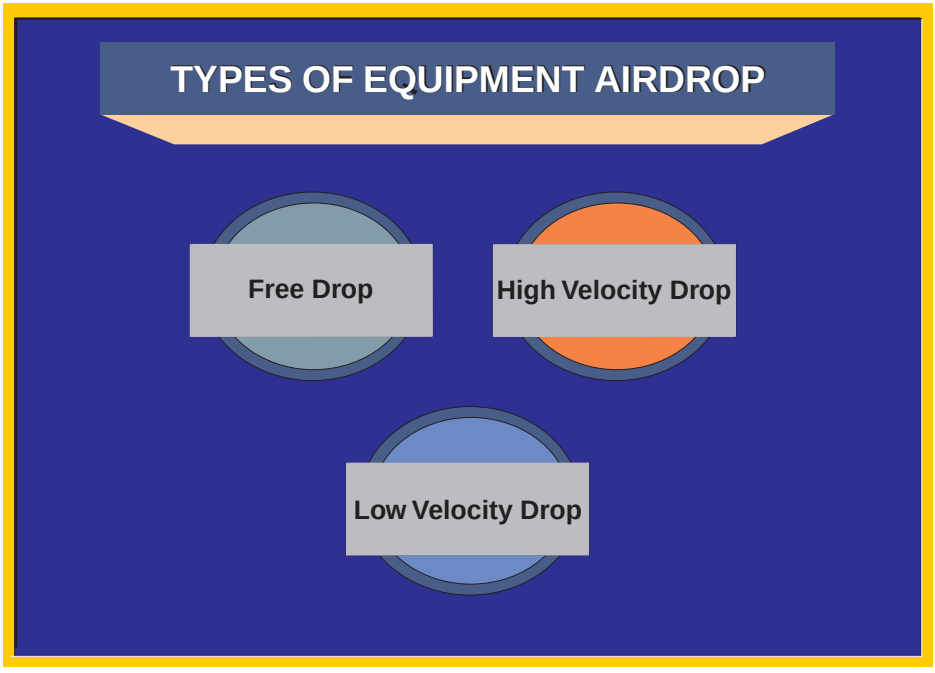
After airdrop requests are submitted, units prepare and secure the drop zone and control the drop zone in the absence of an Air Force combat control team, recover airdropped supplies and equipment, and recover, retrograde, or destroy airdrop equipment.

Types of Equipment Airdrop. (See figure below.)

Free Drop. Free drop is airdrop without a parachute or retarding device in which the load descends at a rate of 130 to 150 feet per second. Energy-dissipating material around the load lessens the shock when the load hits the ground. Items that may be free-dropped include fortification or barrier material, bales of clothing, and meals ready to eat.

High-Velocity Drop. Ring-slot cargo, cargo extraction, and pilot parachutes are used to stabilize loads for high-velocity airdrop. The parachute has enough drag to hold the load upright during the descent at 70 to 90 feet per second. Items to be high-velocity airdropped are placed on energy-dissipating material and rigged in an airdrop container. Such items might include subsistence, fuel products, and ammunition.

Low-Velocity Drop. Cargo parachutes are used for low-velocity airdrop. Items are rigged on an airdrop platform or in an airdrop container. Energy-dissipating material placed beneath the load lessens the shock when the load hits the ground. Cargo parachutes attached to the load reduce the rate of descent to no more than 28 feet per second. Fragile materiel, vehicles, and artillery may be low-velocity airdropped.



Related Terms

aerial delivery

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AIR EFFORT

A portion of the total joint force air effort is available for joint air operations. The air capabilities/forces made available for joint force air component commander (JFACC) or joint force commander (JFC) (under the JFC staff option) planning and tasking are determined by the JFC, in consultation with component commanders, and based on the assigned objectives and the concept of operations.

Component commanders make capabilities/forces available to the JFC for tasking to support the joint force as a whole based on assigned component missions and JFC guidance. These capabilities/forces are tasked directly by the JFC or by the JFACC based on the JFC's air apportionment decision.

Only the JFC has the authority to reassign, redirect, or reallocate a component's direct support air capabilities/forces. When a component does not have the organic air capabilities/forces to support their assigned mission, the JFACC or JFC will task available joint air capabilities/forces (through the joint air tasking order (ATO)) based on the JFC's air apportionment decision. An understanding of what defines component direct support air capabilities/forces and joint air capabilities/forces is necessary. Component direct support air capabilities/forces are those air capabilities/forces organic to a component that are used by the component to accomplish its assigned mission. When appropriate, they appear on the joint ATO for coordination and deconfliction purposes.

Related Terms

joint force air component commander

Joint Source Publications

JP 3-56.1 Command and Control for Joint Air Operations

AIRLAND DELIVERY

There are two types of airland operations that provide transportation within a theater or joint operations area. The first is the routine movement of personnel and equipment within the theater during peacetime or contingency operations. The second type is the airlanding of combat forces directly into an objective area as the situation allows.

In the airland delivery method, airlifted personnel and materiel are disembarked, unloaded, or unslung from an aircraft after it has landed or, in the case of vertical takeoff and landing aircraft, after it at least has entered a hover. Airland delivery is usually the most efficient delivery method because it allows a greater degree of unit integrity and capability to rapidly employ units after landing; it carries the least risk of injuring personnel and damaging loads; it requires minimal specialized training and equipment for transported personnel; it seldom requires special rigging of materiel; and it permits the maximum utilization of allowable cabin loads by eliminating the volume and weight penalties of preparing loads for airdrop deliveries. Another advantage of the airland delivery method is that it maximizes the opportunity to backhaul or evacuate cargo and personnel.

The principal disadvantages of airland operations are they require airfields or landing zones that are moderately level or unobstructed and may or may not be available or adequate for the

anticipated operation; they may increase mission intervals depending on airfield size, offload equipment availability, and airfield support capability; they require more time for delivery of a given size force than parachute delivery; they normally require airlift mission support such as ground-handling and transportation assets; and they may prolong and intensify the exposure of the aircraft operating at forward fields to ground or air attacks. However, because the operational tactics and rapid offloading techniques of various theater airlift aircraft can minimize these disadvantages, planners should view airland delivery as the option of first choice for most air movements.

Related Terms

aerial delivery

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AIRLIFT COORDINATION CELL

A cell within the air operations center which plans, coordinates, manages, and executes theater airlift operations in the area of responsibility or joint operations area. Normally consists of an airlift plans branch, an airlift operations branch, and an airlift logistics branch. Also called ALCC. JP 1-02

The exact organization of the airlift coordination cell (ALCC) will be dependent upon the requirements of the joint force commander (JFC) and in the joint force air component commander's (JFACC's) (or Air Force component commander's (AFCC's)) concept of organizing and operating the joint air operations center (JAOC). Normally, the ALCC will consist of an airlift plans branch, an airlift operations branch, and an airlift support branch. These airlift elements, though consolidated in the ALCC, will coordinate with various air operations center planning and operational elements. The JFACC normally exercises control of the ALCC through the JAOC director. As part of the JAOC director's staff, the Chief, ALCC, plans, coordinates, and manages the execution of theater airlift operations with assigned forces. The ALCC will coordinate with the air mobility element (AME), (or Air Mobility Command's tanker airlift control center, if no AME is established in theater), the joint movement center, and the director of mobility forces if designated. In those cases where the JFACC is other than Air Force, the JFC should task the AFCC to augment the Chief, ALCC, with knowledgeable personnel to support operations in the JAOC.

Related Terms

air mobility element; air operations center; director of mobility forces

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AIRLIFT MISSION COMMANDER

A commander designated when airlift aircraft are participating in airlift operations specified in the implementing directive. The airlift mission commander is usually designated by the commander of the deployed airlift unit, but may be selected by the Air Force component commander or joint force air component commander depending on the nature of the mission. JP 1-02

The airlift mission commander establishes control through the combat control team of all air traffic movement (traffic pattern, landing, taxi, parking, and takeoff) at Air Force operated landing zones, and also is responsible for movement control of ground vehicles at these locations and space allocation for operations and living areas.

Related Terms

joint force air component commander

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AIR LINES OF COMMUNICATIONS

Airlift's primary mission is to establish air lines of communications (ALOCs) between air terminals, as required for operations. The United States establishes ALOCs by coordinating the operations of three distinct components of airlift forces. Strategic airlift forces (also called intertheater or global airlift forces) primarily provide common-user airlift into theater terminals from outside the theater. Theater airlift forces primarily provide common-user lift between terminals within a theater. Organic airlift forces, drawn mainly from Service elements, are not common-user assets, and primarily provide specialized lift to specific users, usually between terminals within a theater.

Related Terms

lines of communications

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AIR MOBILITY ELEMENT

> The air mobility element is an extension of the Air Mobility Command Tanker Airlift Control Center deployed to a theater when requested by the geographic combatant commander. It coordinates strategic airlift operations with the theater airlift management system and collocates with the air operations center whenever possible. Also called AME. JP 1-02

The air mobility element (AME) deploys to the theater as an extension of the Air Mobility Command (AMC) Tactical Air Command Center, when requested. It coordinates with the theater airlift management system and collocates with the air operations center (or joint or combat air operations center) whenever possible. It provides coordination and interface of the strategic air mobility system (airlift and air refueling) with the theater air logistic system. The AME assists and advises the Director of Mobilization Forces, when established, on matters concerning strategic air mobility assets. AMC retains operational control of the AME and will organize and manage the AME to support the geographic combatant commander's airlift requirements in consonance with US Transportation Commander's global requirements. The corporate efforts of the AME, airlift control center, and the Tanker Cell ensure the seamless execution of air mobility operations in support of the theater.

Related Terms

Director of Mobility Forces

Source Joint Publications

JP 4-01.1 JTTP for Airlift Support to Joint Operations

AIR MOVEMENT PLAN

As part of the overall planning for an operation involving air movement, air movement planning is developed from the objective area back to the existing disposition of forces (backward planning). The sequence is as follows: overall tactical plan; landing plan; air movement plan; and marshalling plan.

The overall tactical plan for an operation is the basis for all other planning. It covers the concept of operations and the scheme of maneuver. It includes a determination of strength and composition of the forces required to accomplish assigned tasks and a supporting logistics plan. Until the overall tactical plan is complete, other planning cannot be finalized.

The air movement plan covers the phase of the air movement operation from the time units begin loading aircraft until they arrive at the objective. The air movement plan lists takeoff time, flight routes, and order of flight and arrival times at drop zones (DZs) and landing zones (LZs). It facilitates timely delivery of units to the objective area in accordance with the landing plan.

Air movement plans are coordinated with elements of plans. The combat control personnel, communications equipment, and navigational aids required for assault, follow-on, resupply, and withdrawal operations are established on the airfield, LZ or DZ.

The air movement table forms the principal part of the air movement plan. It contains the essential elements of the air movement plan, as listed in the figure below.

ESSENTIAL ELEMENTS OF THE AIR MOVEMENT PLAN

1. Departure airfield for each serial.
2. Number of aircraft for each serial.
3. Chalk numbers for each aircraft, serial, and departure airfield.
4. Unit identity of the airlift element.
5. Name and rank of each US Air Force serial commander.
6. Employment method for each aircraft airlanding, personnel drop, heavy equipment drop, container delivery system, and extraction.
7. Ground unit identity.
8. Name and rank of each assault force commander.
9. Load times.
10. Station times.
11. Takeoff times.
12. Designated primary and alternate landing zones or drop zones for each serial.
13. Time over target/arrival for the lead aircraft.
14. Remarks (include special instructions, key equipment, and location of key members of the chain of command.

Related Terms

landing plan

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

AIR OPERATIONS CENTER

The principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services. Also called AOC. JP 1-02

The air operations center (AOC) is the Air Force component commander's (AFCC's) means of turning the joint force commander's guidance into a component air operations plan. It allocates resources and tasks forces through air tasking orders. In joint operations, the Joint Air Operations Center is collocated with the AOC if the AFCC is the joint force air component commander.

Related Terms

joint air operations center; theater air control system

Source Joint Publications

JP 3-09.3 JTTP for Close Air Support (CAS)

AIRSPACE CONTROL IN THE COMBAT ZONE

A process used to increase combat effectiveness by promoting the safe, efficient, and flexible use of airspace. Airspace control is provided in order to prevent fratricide, enhance air defense operations, and permit greater flexibility of operations. Airspace control does not infringe on the authority vested in commanders to approve, disapprove, or deny combat operations. Also called combat airspace control; airspace control. JP 1-02

General. Using current US national military objectives and assigned missions as a baseline, the joint force commander (JFC) develops area of responsibility/joint operations area (AOR/JOA)-specific concepts for combat zone airspace control operations to aid in accomplishing these objectives. Procedures to implement these concepts must take into consideration the likelihood of multinational warfare. As such, they should consider the need for developing doctrine and procedures to ensure compatibility and interoperability of support systems and methods to handle potential alliances and coalitions. US forces participating in multinational operations also may be subject to command arrangements and authorities established in international agreements.

Combat zone airspace control increases combat effectiveness by promoting the safe, efficient, and flexible use of airspace with a minimum of restraint placed upon the friendly airspace users. Airspace control includes coordinating, integrating, and regulating airspace to increase operational effectiveness; however, the airspace control authority does not have the authority to approve, disapprove, or deny combat operations that is vested only in operational commanders. Combat zone airspace control needs to provide a commander the operational flexibility to employ forces effectively in a joint or multinational campaign or operation.

Fundamental Considerations. The basic principles of war and the commander's concept of operations are the cornerstone of operations. The primary objective of combat zone airspace control is to maximize the effectiveness of combat operations without adding undue restrictions

and with minimal adverse impact on the capabilities of any Service or functional component. Other fundamental considerations are shown in the figure below.

Basic Principles. The airspace control system supporting joint force operations must be based on the principle of unity of effort. A coordinated and integrated combat airspace control system is essential to successful operations. A major reason for close coordination between airspace control, air traffic control, and area air defense elements is to reduce the risk of fratricide and balance those risks with the requirements for an effective air defense.

FUNDAMENTAL CONSIDERATIONS OF AIRSPACE CONTROL IN THE COMBAT ZONE

- The need for each Service or functional component within the joint force to operate a variety of air vehicles and weapon systems, both high and low speed, rotary- and fixed-wing (manned and unmanned), within the combat zone airspace control area.
- The need for each Service or functional component to use the airspace with maximum freedom consistent with the degree of risk operationally acceptable to the joint force commander.
- The need for airspace control activities to be performed in congruence with air defense operations to integrate and synchronize surface-to-air defense weapons and air defense aircraft for maximum effectiveness.
- The need to discriminate quickly and effectively between friendly, neutral, and enemy air operations and vehicles.
- The need for the combat zone airspace control system to be responsive to the requirements of the joint force. The airspace control system needs to be capable of supporting high-density traffic and surge operations as may be required by the joint force commander.
- The need for close coordination and integration of surface force operations, supporting fires, air operations, air defense operations, special operations, and airspace control activities.
- The need to accommodate US, host-nation, and multinational airspace control activities within the joint combat zone.
- Recognition of the saturation levels and limitations of airspace control networks.
- The need for temporary restrictive airspace control measures on certain areas of airspace to allow subordinate commanders total freedom of operations.
- Detailed incorporation of coordinated offensive operations using electronic warfare elements, strike aircraft, and cruise missiles to ensure that defensive elements or procedures of the force do not unacceptably inhibit or degrade offensive capabilities.
- The need to ensure that the airspace control network remains survivable and effective.
- The need to provide maximum opportunities to employ deception measures.
- The need to standardize communications data, format, and language requirements in multinational operations to reduce the possibility for differences in interpretation, translation, and application of airspace control procedures during multinational operations.
- The capability to support day or night and all-weather operations.

Identification requirements for airspace control must be compatible with those for air defense. Combat zone airspace control, air defense, military air traffic control, and supporting command, control, communications, and computers (C4) procedures, equipment, and terminology need to be compatible and mutually supporting and should be interoperable.

Common combat zone airspace control procedures within the joint force AOR/JOA enhance the effectiveness of air operations. These procedures need to allow maximum flexibility through an effective mix of positive and procedural control measures. The control structure needs to permit close coordination between land, maritime, special operations forces, and air operations and allow rapid concentration of combat power in a specific portion of airspace in minimum time. Procedural control needs to be uncomplicated and readily accessible to all aircrews, air traffic controllers, air defense weapons controllers, and airspace controllers.

The airspace control system in the combat zone must have a reliable, jam-resistant, and, where appropriate, secure C4 network. However, care must be exercised to avoid control procedures that rely heavily on voice communications. Emphasis should be placed on simple, flexible air traffic control schemes, and "in the blind" procedures.

Airspace control systems in the combat zone need to be durable and redundant because they are likely to be prime targets for an attacker. The airspace control structure in the combat zone needs to be responsive to evolving enemy threat conditions and to the evolving operation.

Combat zone airspace control is a compromise between a wide variety of conflicting demands for airspace use. Flexibility and simplicity must be emphasized throughout to maximize the effectiveness of forces operating within the system. Combat zone airspace control needs to be capable of supporting day or night and all-weather operations.

In summary, the combat zone airspace control procedures must prevent mutual interference from all users of the airspace, facilitate air defense identification, and safely accommodate and expedite the flow of all air traffic in the theater of operations. In accomplishing these broad tasks, the basic principles of war and the JFC's concept of operations remain the cornerstones of operations.

Organization. The following descriptions of broad duties are central to effective airspace control in the combat zone. Further, complete understanding of the role of the JFC, the joint force air component commander (JFACC), the component commanders, the airspace control authority (ACA), the area air defense commander (AADC), and fire support coordination agencies and the roles that they play in executing the JFC's campaign or operation plan is essential.

Joint Force Commander. A combatant commander exercises combatant command (command authority) and a subordinate JFC exercises operational control (OPCON) over assigned forces. The JFC normally exercises OPCON over attached forces, unless otherwise specified in the establishing directive. The JFC is responsible for employment of forces assigned, attached, or otherwise made available to accomplish the assigned mission or objective according to guidance provided by the establishing commander. Key to the JFC's responsibilities is the development of objectives and priorities for the joint force. Objectives and priorities provide the basis for all subordinate and supporting plans, including the airspace control plan. Finally, the JFC provides authoritative direction to subordinate commanders that includes assigning objectives, priorities, and tasks. For air operations, this includes general and specific direction on the objectives and priorities.

Joint Force Air Component Commander. The JFC will normally designate a JFACC, whose authority and responsibilities are defined by the establishing JFC based on the JFC's estimate of the situation. The JFACC's responsibilities normally will include, but are not

limited to, planning, coordinating, allocating, and tasking based on the JFC's concept of operations and air apportionment decision. Because of the integrated relationship between airspace control measures and air defense operations, ACA and AADC duties normally should be performed by the same person, who may also be the JFACC. Normally, the JFACC will be the Service component commander who has the preponderance of the air assets to be used and the ability to assume that responsibility.

Component Commanders. The component commander advises the JFC on the employment of component forces and the direction and control of those forces. Each component commander plans and executes a portion of the total air effort and interacts with other components. Subject to the authority of the JFC, each component commander within a joint force is responsible for the following:

- Employs air defense weapon systems in accordance with the principles established in the Joint Pub 3-01 series, Joint Pub 3-04, "Doctrine for Joint Maritime Operations (Air)," established rules of engagement, and the area air defense plan.
- Coordinates and deconflicts the employment of assigned and attached forces with other subordinate commands as required by the operational situation. Coordination for combat zone airspace control may be facilitated through collocation of key airspace control, air defense, and fire support coordination agencies.
- Provides airspace control in areas designated by the ACA in accordance with directives and/or procedures in the airspace control plan (ACP). Be prepared to provide airspace control in other areas designated by the ACA when combat or other factors degrade the airspace control system.
- Forwards requests for airspace control measures to the ACA in accordance with the ACP.
- Develops detailed airspace control instructions, plans, and procedures in accordance with guidance in the ACP. These detailed instructions, plans, and procedures need to be coordinated by the ACA to ensure consistency with JFC-approved airspace control guidance and approved in accordance with directives and/or procedures in the ACP.
- Provide necessary facilities and personnel for airspace control functions in assigned areas of operations and identify these facilities and personnel to the ACA for inclusion in the ACP.

Airspace Control Authority. The JFC designates the ACA. The broad responsibilities of the ACA include coordinating and integrating the use of the airspace control area. Subject to the authority and approval of the JFC, the ACA develops broad policies and procedures for airspace control and for the coordination required among units within the AOR/JOA. The ACA establishes an airspace control system that is responsive to the needs of the JFC, provides for integration of the airspace control system with that of the host nation, and coordinates and deconflicts user requirements. The ACA develops the ACP and, after JFC approval, promulgates it throughout the AOR/JOA. Implementation of the ACP is through the airspace control order (ACO) which must be complied with by all components, as described in Joint Pub 3-56.1, "Command and Control For Joint Air Operations." A key responsibility of the ACA is to provide the flexibility needed within the airspace control system to meet contingency situations that necessitate rapid employment of forces. Finally, centralized direction by the ACA does not imply assumption of operational control or tactical control over any air assets. Matters on which the ACA is unable to obtain agreement will be referred to the JFC for resolution.

Area Air Defense Commander. The JFC will normally designate an AADC. The successful conduct of air defense operations requires the integrated operation of all available air defense

systems. Air defense operations must be coordinated with other operations, both on and over land and sea. The responsibilities of the AADC are interrelated with those of the ACA. Preferably, one individual will be assigned the responsibilities of the AADC and the ACA. If, however, this is not the case, close coordination between the AADC and ACA is absolutely essential. The AADC develops the area air defense plan and, after JFC approval, promulgates it throughout the AOR/JOA. For a detailed discussion of the AADC, see Joint Pubs in the 3-01 series.

Planning for Airspace Control in the Combat Zone. The following broad principles of planning (see figure below) are essential to effective combat zone airspace control:

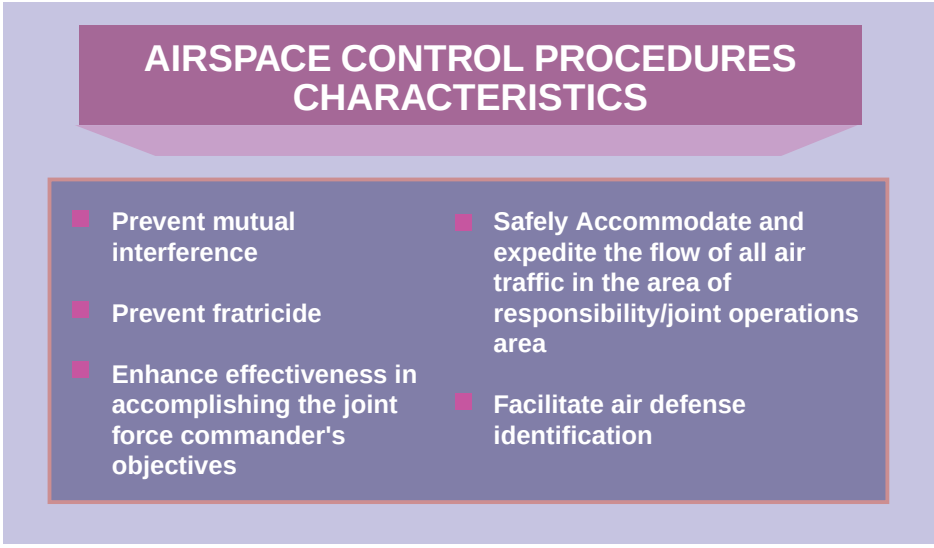
- Support the Joint Force. The airspace control system in the combat zone must be planned and integrated to meet and complement the JFC's campaign or operation plan.
- Interoperability. Combat zone airspace control needs to be exercised in both the multi-Service and in the multi-nation environments in peacetime to operate effectively during conflict. Planning for combat zone airspace control must include planning for interoperability of equipment, as well as personnel and terminology.
- Mass and Timing. Planning for combat zone airspace control needs to include the aircraft traffic volume needed for the anticipated offensive operations and the timing constraints placed on those operations. Planning also needs to be fully integrated with the needs of air defense operations to respond quickly and with adequate force to enemy intrusion.
- Unity of Effort. Proper liaison between joint force components should be identified and exercised prior to hostilities. Representatives from different components need to integrate information flow throughout the system and provide expertise to the designated combat zone airspace control authorities.
- Integrated Planning Cycles. The airspace planning cycle should be integrated with the planning cycle for the joint campaign or operation plan. Input from all organizations involved in the conflict must be consolidated, and the final airspace control plan devised and disseminated to users in the ACO. The ACP can be added as an appendix to the operations annex to the joint force operation plan.
- Degraded Operations. Plans should anticipate the effects of electronic warfare and communications degradation on system operations. An effective combat zone airspace control system needs to plan for the full spectrum of communications from no degradation to full degradation. Plans also should consider the effects of weather and darkness.

Integration of Combat Zone Airspace Control and Air Defense Operations. Because these two areas would conflict and interfere with each other if operating independently,

prioritization and integration of each mission is essential. Ultimately, the airspace control function must be performed in close conformity with air defense operations. Airspace control procedures will be used to assist in aircraft identification, facilitate engagement of enemy aircraft, and provide safe passage of friendly aircraft.

Air defense units must be free to engage hostile aircraft within prescribed rules of engagement. However, procedures may need to be established within the combat zone airspace control system to allow identification of friendly aircraft, not cause delays in offensive operations, and prevent fratricide. These procedures need to be simple to execute for both aircrews and ground operations personnel and may include visual, electronic, geographic, and/or maneuver means for sorting friend from foe. Air defense operations should not cause delays in air operations by creating an unnecessarily complicated or lengthy air route structure. Likewise, airspace control measures should not unduly restrain surface-to- air weapons systems so as to put them at increased risk of enemy air attack. Characteristics of procedures used to deconflict in time and space, coordinate and integrate the activities of all users of airspace (including fixed- and rotary-winged aircraft) are shown in the figure below.

Air defense systems might be overwhelmed by massed enemy attacks across limited geographic areas along the front. Therefore, highly flexible airspace control procedures need to be devised to anticipate the perceived threat. The procedures should allow coordinated employment of air and land or maritime air defense systems against the threat and use the inherent flexibility of air defense airborne platforms to mass forces to meet the enemy attackers. However, the problem of separating friendly and enemy aircraft during the heat of battle and employing land- or maritime-based air defenses against these enemy elements is a highly complex task.



Related Terms

area air defense commander; joint force air component commander

Source Joint Publications

JP 3-52 Doctrine for Joint Airspace Control in the Combat Zone

AIR TASKING ORDER

A method used to task and disseminate to components, subordinate units, and command and control agencies projected sorties/capabilities/forces to targets and specific missions. Normally provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions. Also called ATO. JP 1-02

The joint air tasking cycle provides a repetitive process for the planning, coordination, allocation, and tasking of joint air missions/sorties and accommodates changing tactical situations or joint force commander (JFC) guidance as well as requests for support from other component commanders. The full joint air tasking order (ATO) cycle from JFC guidance to the start of ATO execution is dependent on the JFC's procedures, but each ATO period usually covers a 24-hour period. The joint ATO matches specific targets compiled by the joint force air component commander (JFACC)/JFC staff with the capabilities/forces made available to the JFACC for the given joint ATO day.

Related Terms

joint air tasking cycle; joint force air component commander; special instructions

Source Joint Publications

JP 3-56.1 Command and Control for Joint Air Operations

ALERT ORDER

1. A crisis-action planning directive from the Secretary of Defense, issued by the Chairman of the Joint Chiefs of Staff, that provides essential guidance for planning and directs the initiation of execution planning for the selected course of action authorized by the Secretary of Defense. 2. A planning directive that provides essential planning guidance and directs the initiation of execution planning after the directing authority approves a military course of action. An alert order does not authorize execution of the approved course of action. JP 1-02

A Chairman of the Joint Chiefs of Staff (CJCS) ALERT ORDER is a formal, crisis action planning-prescribed order approved by the Secretary of Defense and transmitted to the supported commander and other members of the joint planning and execution community (JPEC) to announce the course of action (COA) selected by the National Command Authorities and to initiate execution planning. The CJCS ALERT ORDER describes the selected COA in sufficient detail to allow the supported commander, in coordination with other members of the JPEC, to conduct the detailed planning required to deploy forces. It will contain guidance to amplify or change earlier guidance provided in the CJCS WARNING ORDER.

Related Terms

course of action; crisis action planning; execution planning

Source Joint Publications

JP 5-0 Doctrine for Planning Joint Operations

ALLIANCE

An alliance is the result of formal agreements (i.e., treaties) between two or more nations for broad, long-term objectives which further the common interests of the members. JP 1-02

Multinational operations, both those that include combat and those that do not, are conducted within the structure of an alliance or coalition. An alliance is a result of formal agreements between two or more nations for broad, long-term objectives. The North Atlantic Treaty Organization is one example. These alliance operations are technically combined operations, though in common usage combined is often used as synonym for all multinational operations. A coalition is an ad hoc arrangement between two or more nations for common action, for instance, the coalition that defeated Iraqi aggression against Kuwait in the Gulf War, 1990-1991.

Joint operations as part of an alliance or coalition require close cooperation among all forces and can serve to mass strengths, reduce vulnerabilities, and provide legitimacy. Effectively planned and executed multinational operations should, in addition to achieving common objectives, facilitate unity of effort without diminishing freedom of action and preserve unit integrity and uninterrupted support.

Each multinational operation is unique, and key considerations involved in planning and conducting multinational operations vary with the international situation and perspectives, motives, and values of the organization's members. Whereas alliance members typically have common national political and economic systems, coalitions often bring together nations of diverse cultures for a limited period of time. As long as the coalition members perceive their membership and participation as advancing their individual national interests, the coalition can remain intact. At the point that national objectives or priorities diverge, the coalition breaks down.

The Armed Forces of the United States should be prepared to operate within the framework of an alliance or coalition under other-than-US leadership. Following, contributing, and supporting are important roles in multinational operations often as important as leading. However, US forces will often be the predominant and most capable force within an alliance or coalition and can be expected to play a central leadership role, albeit one founded on mutual respect. Stakes are high, requiring the military leaders of member nations to emphasize common objectives as well as mutual support and respect.

Related Terms

coalition; multinational operations

Source Joint Publications

JP 3-0 Doctrine for Joint Operations

ALLOCATION REQUEST

A message used to provide an estimate of the total air effort, to identify any excess and joint force general support aircraft sorties, and to identify unfilled air requirements. This message is used only for preplanned missions and is transmitted on a daily basis, normally 24 hours prior to the start of the next air tasking day. Also called ALLOREQ. JP 1-02

Allocation (Air). Following the joint force commander's (JFC's) air apportionment decision, the joint force air component commander/joint force commander (JFACC/JFC) staff translates that decision into total number of sorties by aircraft or weapon type available for each operation/task they support. On the basis of the JFCs air apportionment decision, internal requirements, and air support request messages, each air capable component prepares an allocation request (ALLOREQ) message for transmission to the JFACC/JFC staff (normally not less than 24 hours prior to the air tasking day). ALLOREQ messages report the number of joint air sorties to be flown during the air tasking day by assigned mission and type aircraft; excess sorties not required by the air capable component and available for taskings by the JFACC/JFC staff; and request for additional air support beyond the capability of the air capable component.

Allotment. The joint air operations center (JAOC) reviews each air capable component's allocation decision/ALLOREQ message and may prepare a sortie allotment (SORTIEALOT) message back to the components as required, in accordance with established operations plans guideline. If SORTIEALOT messages are not used, the JAOC can pass the information normally contained in the SORTIEALOT by other means (e.g., contingency theater automated planning system, through component liaisons). The SORTIEALOT message confirms (and where necessary modifies) the ALLOREQ and provides general guidance for planning joint air operations.

Related Terms

Source Joint Publications

JP 3-56.1 Command and Control for Joint Air Operations

ALL-SOURCE INTELLIGENCE

1. Intelligence products and/or organizations and activities that incorporate all sources of information, including, most frequently, human resources intelligence, imagery intelligence, measurement and signature intelligence, signals intelligence, and open source data, in the production of finished intelligence. 2. In intelligence collection, a phrase that indicates that in the satisfaction of intelligence requirements, all collection, processing, exploitation, and reporting systems and resources are identified for possible use and those most capable are tasked. JP 1-02

Information and intelligence from all sources, including counterintelligence, (see figure below) must be evaluated, correlated, and integrated into products that present the most complete, accurate, and objective views possible. Joint operations in particular require complete and composite views of the situation and an adversary's land, sea, air, and space forces. Having access to and using all sources of information and intelligence is essential to understanding the actual situation. Single-source intelligence analysis may lead to incomplete assessments. Use of the all-source concept and methodology will reduce the risks of deception. It will also become the basis for the nomination and development of countermeasures against hostile intelligence and operations.

All-source intelligence fusion must begin with collection and production planning. Each source can provide useful information and cues for collection and exploitation through other sources. All-source intelligence dissemination in support of joint operations at the national, theater, and subordinate joint force levels will be via Joint Worldwide Intelligence

INTELLIGENCE SOURCES

IMINT	**Imagery Intelligence**
PHOTINT	**Photo Intelligence**
SIGINT	**Signals Intelligence**
COMINT	**Communications Intelligence**
ELINT	**Electronic Intelligence**
FISINT	**Foreign Instrumentation Signals Intelligence**
TELINT	**Telemetry Intelligence**
RADINT	**Radar Intelligence**
HUMINT	**Human Intelligence**
MASINT	**Measurement and Signature Intelligence**
ACINT	**Acoustical Intelligence**
OPTINT	**Optical Intelligence**
ELECTRO-OPTICAL	**Electro-optical Intelligence**
IRINT	**Infrared Intelligence**
LASINT	**Laser Intelligence**
NUCINT	**Nuclear Intelligence**
RINT	**Unintentional Radiation Intelligence**
OSINT	**Open-Source Intelligence**
TECHINT	**Technical Intelligence**
CI	**Counterintelligence**

■ ***Denotes primary source type***

Communications System (JWICS) and Joint Deployable Intelligence Support System (JDISS). These systems support the production, dissemination, and display of fused intelligence critical to theater battle management.

The architecture provides access to data from national, theater and tactical intelligence organizations and sources primarily from a "push-pull" system. A "pull" concept will result in joint force commanders (JFCs) receiving only high-quality, relevant intelligence based on their mission and phase of the operation. The "pull" capability is designed to prevent communications circuit saturation. In addition, time-sensitive intelligence will be "pushed" to JFCs and components via dedicated broadcasts in response to preplanned essential elements of information. Automated data processing interoperability with force level systems will be accomplished by JDISS integration. Through JWICS connectivity, intelligence production at the national level can be shared in near real time with the JFC.

Automated processing and seamless connectivity at all levels allow intelligence analysts at all levels access to imagery and multiple data bases while concurrently producing intelligence products in response to specific mission requirements. This up, down, and across echelon interface among strategic, operational, and tactical intelligence organizations is the backbone for joint intelligence dissemination.

Related Terms

intelligence

Source Joint Publications

JP 2-0 Joint Doctrine for Intelligence Support to Operations

AMPHIBIOUS DEMONSTRATION

A type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him. JP 1-02

General. The amphibious demonstration is intended to confuse the defender as to time, place, or strength of the main operation. In the amphibious objective area (AOA), an amphibious demonstration may be conducted in or near the landing area, in conjunction with an amphibious assault. In other cases, a demonstration may be conducted outside the AOA by a separate amphibious task force (ATF) to divert or immobilize enemy strategic reserve forces that could threaten the amphibious assault. The joint force commander (JFC) could, likewise, use the demonstration to divert enemy attention from other friendly nonamphibious operations in the theater of operations.

Effectiveness of a demonstration increases in direct proportion to the degree of realism involved in its execution. It should neither be underplayed nor overplayed. It is crucial that the enemy receive a convincing impression of preparations for a landing. All visible, audible, and electronic aspects of the demonstration must appear to be authentic. A demonstration normally includes the approach of demonstration forces to the demonstration area, at least a part of the ship-to-shore movement, and employment of supporting fires. A brief but intense preliminary bombardment will usually be more effective than deliberate harassing fire over longer periods of time. A communications deception plan should be used. Special operations forces and tactical deception units may be employed.

Demonstrations Within the Amphibious Objective Area. An amphibious demonstration may be conducted by a portion of the ATF within the AOA when it is intended to influence enemy action within that area. Its intended purpose may be to cause the enemy to employ its reserves improperly, to disclose weapon positions by inducing it to fire prematurely, to distract its attention, to place an early burden on its command, control, and communications system, to precipitate a general air or naval engagement, and/or to harass it. The decision to conduct such a demonstration is made during planning by the commander, amphibious task force (CATF), following consultation with the commander, landing force, and other major force commanders as appropriate.

Demonstrations Outside the Amphibious Objective Area. An amphibious demonstration may be conducted outside the AOA to divert or immobilize enemy strategic reserves or other forces capable of affecting the amphibious operation, to distract hostile attention from such an operation, or to precipitate a general air or naval engagement. Such a demonstration may be executed as a supporting operation by a separate ATF. The time and place of the demonstration is decided by the JFC or higher authority on the basis of the recommendations of CATF.

Demonstrations in Support of Other Operations. An amphibious demonstration may be conducted with the intent of supporting other, nonamphibious operations in the theater. A demonstration conducted before, during, or after commencement of another operation may distract the attention of enemy commanders and induce the enemy to divert major resources

from the main area of operations. The decision to conduct such a demonstration is made by the JFC or higher authority on the basis of the recommendations of CATF and other major force commanders as appropriate.

Related Terms

amphibious operation; amphibious raid

Source Joint Publications

JP 3-02 Joint Doctrine for Amphibious Operations

AMPHIBIOUS OPERATION

An attack launched from the sea by naval and landing forces, embarked in ships or craft involving a landing on a hostile or potentially hostile shore. As an entity, the amphibious operation includes the following phases: a. planning — The period extending from issuance of the initiating directive to embarkation. b. embarkation — The period during which the forces, with their equipment and supplies, are embarked in the assigned shipping. c. rehearsal — The period during which the prospective operation is rehearsed for the purpose of: (1) testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; (2) ensuring that all echelons are familiar with plans; and (3) testing communications. d. movement — The period during which various components of the amphibious task force move from points of embarkation to the objective area. e. assault — The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. JP 1-02

General. Amphibious operations are designed and conducted primarily to prosecute further combat operations, obtain a site for an advanced naval, land, or air base, deny use of an area or facilities to the enemy, and fix enemy forces and attention, providing opportunities for other combat operations.

The essential usefulness of an amphibious operation stems from its mobility and flexibility (i.e., the ability to concentrate balanced forces and strike with great strength at a selected point in the hostile defense system). The amphibious operation exploits the element of surprise and capitalizes on enemy weaknesses by projecting and applying combat power at the most advantageous location and time. The threat of an amphibious landing can induce enemies to divert forces, fix defensive positions, divert major resources to coastal defense, or disperse forces. Such a threat may result in the enemy making expensive and wasteful efforts in attempting to defend their coastlines.

The salient requirement of an amphibious assault, which is the principal type of amphibious operation, is the necessity for swift, uninterrupted buildup of sufficient combat power ashore from an initial zero capability to full coordinated striking power as the attack progresses toward amphibious task force (ATF) final objectives. This requirement, although similar to those for an airborne or airmobile assault, dictates the organizational and technical differences between an amphibious operation and sustained land warfare.

Other difficulties that must be considered and planned for when conducting an amphibious operation include the following:

- Natural forces such as unfavorable weather, seas, surf, and features of hydrography.

- Technical, operational, and logistic problems associated with loading large numbers of troops, equipment, and supplies onto ships (sometimes at geographically separated embarkation points).
- Moving the landing force (LF) to the landing area.
- Landing the LF in the proper sequence on open beaches or landing zones, often while under fire. The LF is especially vulnerable during the ship-to-shore movement.
- Combatting possible employment of nuclear, biological, or chemical weapons by the enemy. This requires use of effective countermeasures, both active and passive, during all stages of the operation.
- Ensuring close cooperation and detailed coordination among all participating forces in an amphibious operation. Forces involved must train together, each possessing a clear understanding of mutual obligations and the special capabilities and limitations of every other element of the ATF.

Command and Organization. Forces assigned to conduct an amphibious operation are organized as an ATF or, when the criteria for a joint task force (JTF) are met, a joint amphibious task force (JATF). Other forces may be directed to provide support to the ATF.

When the ATF is organized as a joint force, organization and command relationships will be in accordance with the general principles set forth in Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)," and Joint Pub 3-0, "Doctrine for Joint Operations." When the ATF is not specifically organized as a JTF, i.e., JATF, it is normally a subordinate command of the Navy component of a combatant or subordinant joint force command structure. The criteria for deciding on task force organization are the Service composition of the force and the desires of the joint force commander. In either case, the commander, amphibious task force (CATF) will retain responsibility for, and operational control of, forces assigned to the ATF and JATF.

In accordance with Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)," the composition of the CATF staff will reflect the organizational form of the assigned forces. Relationships of CATF and commander, landing force (CLF) with other commands will be the subject of specific instruction contained in the initiating directive.

The commander, amphibious task force may exercise tactical control over attached forces for specific operations.

The complexity of amphibious operations and the vulnerability of forces engaged in these operations require an exceptional degree of unity of effort and operational coherence. The difficulties involved in conducting amphibious operations will normally dictate that the combatant commander will participate in planning, theater integration, and support. During embarkation, rehearsal, movement, and assault, the CATF must exercise clear and unambiguous authority over assigned, attached, and supporting forces. When unforeseen contingencies arise, the combatant commander (and the commanders of participating and supporting forces) must establish and prepare on-call responses in anticipation of ATF and LF needs following the guidelines provided in operational plans and orders. The CATF and CLF should gain and maintain exceptional situational awareness using the best command, control, communications, and intelligence means available and exercise on-scene command and control through streamlined and highly reliable communications.

Characteristics. An amphibious operation is a military operation launched from the sea by naval and landing forces embarked in ships or craft involving a landing on a hostile or potentially hostile shore. It is directed by the combatant commander, subunified commander, or JTF commander delegated overall responsibility for the operation. An amphibious operation requires extensive air participation and is characterized by closely integrated efforts of forces trained, organized, and equipped for different combat functions.

Types of Amphibious Operations. The principal type of amphibious operation is the amphibious assault, which is distinguished from other types of amphibious operations in that it involves establishing a force on a hostile or potentially hostile shore.

Other types of amphibious operations that do not involve establishing an LF on a hostile or potentially hostile shore are as follows:

- Amphibious Withdrawal. An amphibious operation involving the extraction of forces by sea in naval ships or craft from a hostile or potentially hostile shore.
- Amphibious Demonstration. An amphibious operation conducted to deceive the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to it.
- Amphibious Raid. An amphibious operation involving swift incursion into or a temporary occupation of an objective followed by a planned withdrawal. Raids are conducted for such purposes as inflicting loss or damage; securing information; creating a diversion; capturing or evacuating individuals and/or materiel; executing deliberate deception operations; and destroying enemy information gathering systems to support operations security.

Not all amphibious operations conducted can be included in the four types. Forces may be called upon to conduct nonconventional amphibious operations that may closely parallel one of the four types (e.g., noncombatant evacuation operations may closely parallel an amphibious raid).

Supporting Operations. In amphibious operations, supporting operations are those operations conducted by forces other than those assigned to the ATF. They are ordered by higher authority at the request of the CATF and normally are conducted outside the area for which the CATF is responsible at the time of their execution. Supporting operations conducted in the amphibious objective area (AOA) before or during the amphibious operation will be coordinated with CATF. Examples of supporting operations are as follows:

- Military deception operations conducted to induce favorable enemy actions that contribute to the accomplishment of the ATF mission.
- Isolation of the landing area by the conduct of interdiction operations.

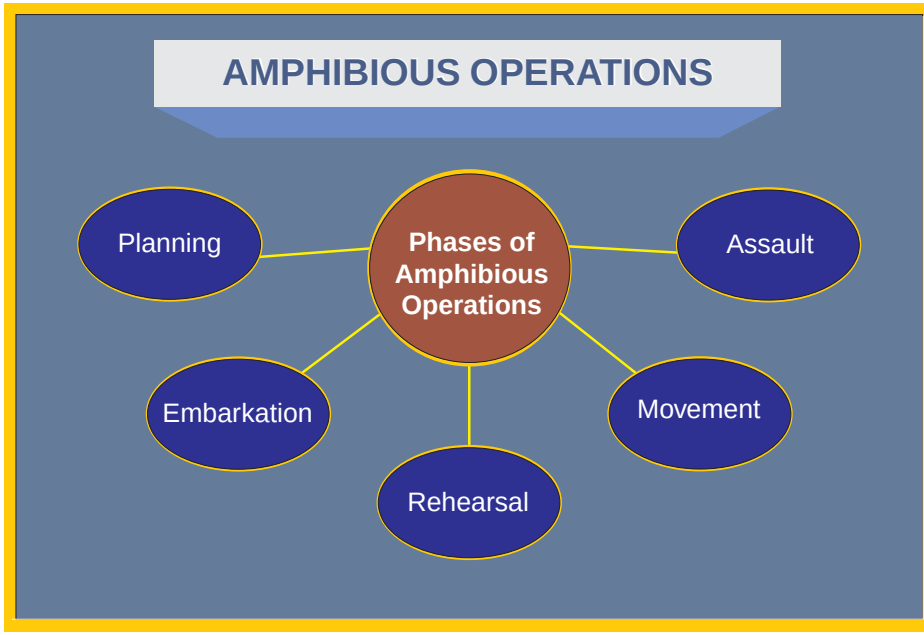
- Operations designed to assist in gaining or maintaining air, ground, or naval superiority in the landing area.
- Air, surface, subsurface, or special operations designed to secure information.
- Special operations designed to disrupt, delay, or confuse the enemy.
- Mine countermeasures operations conducted in the vicinity of the intended landing area(s) before the establishment of the AOA.
- Special operations, in and along the beachhead area(s) prior to the establishment of the AOA, to gather intelligence and/or clear obstacles.

Preassault operations are not supporting operations. Preassault operations are conducted in the AOA by elements of the ATF before the arrival of the major assault elements.

Relative Strength Requirements. To achieve success, an ATF should be assured in the landing area of naval superiority against enemy surface and subsurface forces, air superiority, and a substantial superiority over enemy forces ashore. In the face of compelling necessity, commanders may undertake an amphibious operation on the basis of a reasonable total superiority of force. For example, naval and air superiority may justify a landing even though the ATF does not possess the desired numerical superiority in ground forces, if friendly surface and air units can be used effectively against enemy forces to negate their advantage. In addition to a preponderance of forces within the landing area, an ATF should have reasonable assurance of freedom from effective interference by enemy surface, subsurface, air, or ground forces from outside the landing area, and the ability to provide continuous support for the forces ashore.

Sequence. The amphibious assault follows a well defined pattern. This should not create significant difficulties for planners preparing for other types of amphibious operations, because this sequence of events or activities occurs to an equal or lesser degree in each of the other amphibious operations.

The general sequence consists of planning, embarkation, rehearsal, movement to the landing area, assault, and accomplishment of the ATF mission. (See figure below.) While planning



occurs throughout the entire operation, it is normally dominant in the period before embarkation. Successive phases bear the title of the dominant activity taking place within the period covered.

The organization for embarkation needs to provide for maximum flexibility to support alternate plans that may of necessity be adopted. The landing plan and the scheme of maneuver ashore are based on conditions and enemy capabilities existing in the AOA before embarkation of the LF. For instance, a change in conditions of US or enemy forces during the movement phase may cause changes in either plan with no opportunity for reloading the LF. In a situation such as this, the sequence of an amphibious operation changes to embarkation, movement, planning, rehearsal, and assault. The extent to which changes in the landing plan can be accomplished depends on the organization for embarkation.

Planning. The planning phase denotes the period extending from the issuance of the initiating directive to embarkation. Although planning does not cease with the termination of this phase, it is useful to distinguish between the planning phase and subsequent phases because of the change that occurs in the relationship between commanders at the time the planning phase terminates and the operational phase begins.

Embarkation. The embarkation phase is the period during which the forces, with their equipment and supplies, embark in assigned shipping.

Rehearsal. The rehearsal phase is the period during which the prospective operation is rehearsed for the purpose of testing the adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; ensuring that all echelons are familiar with plans; and testing communications.

Movement. The movement phase is the period during which various elements of the ATF move from points of embarkation to the AOA. This move may be via rehearsal, staging, or rendezvous areas. The movement phase is completed when the various elements of the ATF arrive at their assigned positions in the AOA.

Assault. The assault phase is the period between the arrival of the major assault forces of the ATF in the landing area and the accomplishment of the ATF mission.

Termination of an Amphibious Operation. The termination of the amphibious operation is predicated on the accomplishment of the ATF mission in accordance with the specific conditions contained in the initiating directive.

When the mission is to establish the LF ashore, the following conditions must be met:

- The beachhead is secured.
- Sufficient tactical and supporting forces are established ashore to ensure the continuous landing of troops and material requisite for subsequent operations.
- Command, communications, and supporting arms coordination facilities are established ashore.
- CLF is ready to assume full responsibility for subsequent operations.

When CATF and CLF are satisfied that the conditions stated above have been met, CATF will report these facts to the commander designated in the initiating directive. This authority will then terminate the amphibious operation; disestablish the AOA; dissolve the ATF; and provide additional instructions, as required, to include command arrangements and disposition of forces.

Related Terms

forcible entry operations

Source Joint Publications

JP 3-02 Joint Doctrine for Amphibious Operations

AMPHIBIOUS RAID

A type of amphibious operation involving swift incursion into or temporary occupation of an objective followed by a planned withdrawal. JP 1-02

General. Amphibious raids are conducted as independent operations or in support of other operations, such as another landing, land, or naval operation. Depending on the purpose of the raid, they may be conducted by stealth or appropriately supported so that they resemble the early stages of an amphibious assault. Generally, amphibious raids are conducted to accomplish the following:

- Destroy certain targets, particularly those that do not lend themselves to destruction by other means.
- Harass the enemy by attacks on isolated posts, patrols, and headquarters and to capture or neutralize key personnel.
- Attack the enemy rear or flank positions on a seacoast, in support of forces engaged with the enemy.
- Obtain information on hydrography, terrain, enemy dispositions, morale, strength, movements and weapons.
- Create a diversion in connection with strategic or tactical deception operations.
- Evacuate individuals, including agents, or materiel.
- Establish, support, or coordinate unconventional warfare activities.

Thorough, integrated rehearsals are essential to precision and speed in executing a raid. All participating forces must be drilled in every detail of debarkation, movement ashore, operations ashore, withdrawal, and reembarkation. Rehearsals are more important in preparation for amphibious raids than for other types of amphibious operations. Timing, critically important in all amphibious raids, cannot be accurately estimated or adhered to without adequate rehearsals.

Planning Considerations. An amphibious raid is planned and executed in the same general manner as an amphibious assault, except a raid always includes provision for withdrawal of the raid force. The following factors must be considered when planning for an amphibious raid:

- It may be unnecessary for selected beaches or landing zones (LZs) to meet all the requirements of an amphibious assault. In small-scale raids, beaches or LZs are chosen from the point of view of ensuring tactical surprise.
- A raid will be of limited duration of a raid.
- Final deployment of the raiding force may not be required until it reaches its objective ashore.
- Limited objective and short duration of the amphibious raid will usually simplify logistic/combat service support (CSS) requirements.
- Through prearrangement, it may be possible for a small-scale raid to be executed with very limited communications means.

The following basic considerations must be considered when planning a raid:

- Surprise is an essential ingredient in the success of an amphibious raid and offsets the lack of logistic and/or CSS and fire support normally associated with amphibious operations.

- Security during the planning and execution of a raid must receive particular attention, to include full exploitation of deceptive measures. Such deceptive measures may take the form of elaborate cover plans or may be confined to simple ruses.
- The following factors will influence the choice of landing areas for the raiding force: enemy dispositions; sea approaches; hydrographic and beach characteristics; availability of LZs; and avenues of approach to the objective.
- Estimated time that the raiding force will have to be ashore may influence the choice of specific time an operation begins and, consequently, the conditions of visibility under which the raiding force may be landed. It will likewise affect the scope of logistic and/or CSS arrangements that must be made.
- Purpose of the raid, including its relation to other concurrent or imminent operations that it may support, will influence the selection of the day the raid is scheduled to commence. In addition, these same factors may affect the availability of shipping, aircraft, and logistic and/or CSS and/or fire support means for the raid.
- Planning for the embarkation of forces assigned to participate in an amphibious raid is similar to preparation for the amphibious assault, including consideration of operational security measures.
- Fire support planning is similar to that for an amphibious assault, except, where surprise is a major factor, supporting fires usually are withheld and radio silence is maintained until surprise is lost.
- Planning for ship-to-shore movement is generally similar to that for an amphibious assault, except that movement may be made entirely by helicopter.
- Withdrawal must be planned in detail including provisions as to time and place for reembarkation. If the landing point and withdrawal point are not the same, positive means of location and identification of the latter must be established. Special situations may permit planning for withdrawal of the raiding force directly into friendly territory without reembarkation. Withdrawal by air may be possible when the area of the raid includes a usable airfield or terrain suitable for landing helicopters.

Related Terms

amphibious operation

Source Joint Publications

JP 3-02 Joint Doctrine for Amphibious Operations

ANTISUBMARINE WARFARE

Operations conducted with the intention of denying the enemy the effective use of submarines. JP 1-02

Antisubmarine warfare (ASW) operations are conducted to deny effective use of enemy submarines. ASW involves the search for, localization and classification of, and attack on submarines and support assets at sea. The naval battle group antisubmarine warfare commander (ASWC) generally exercises tactical control (TACON) of local, direct support ASW assets such as maritime patrol aircraft, helicopters, towed array ships, and submarines in integrated direct support. Associated support aircraft, surface forces, and submarines generally do not come under the TACON of the battle group ASWC, but remain under the control of the composite warfare commander. The ASWC needs to effectively integrate all ASW assets (air, surface, and subsurface) to deal with both the tactical threat to the joint force and the strategic threat posed by ballistic missile submarines. An example of a joint maritime operations

(air) mission to support ASW includes electronic surveillance to aid in the identification of enemy submarines.

Related Terms

Source Joint Publications

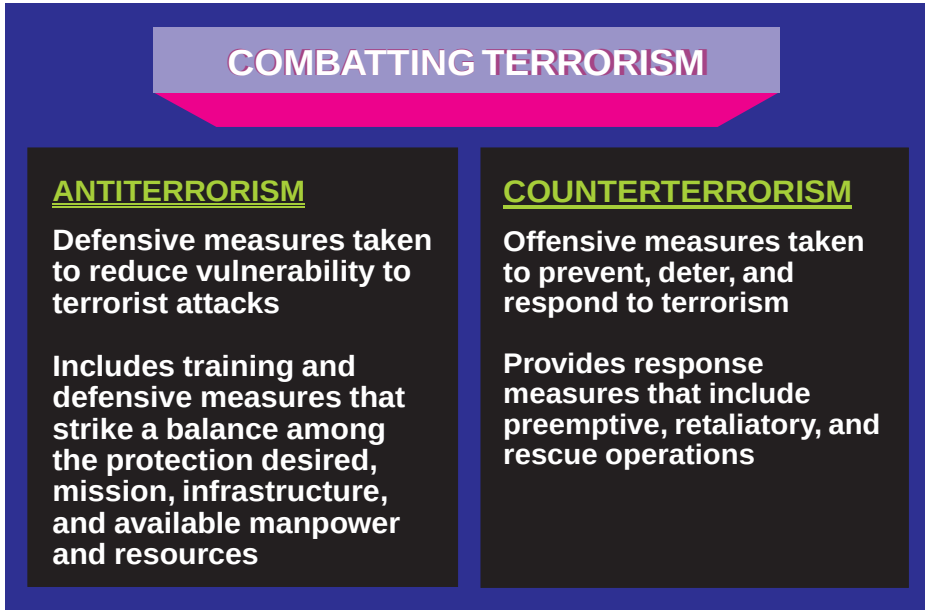
JP 3-04 Doctrine for Joint Maritime Operations (Air)

ANTITERRORISM

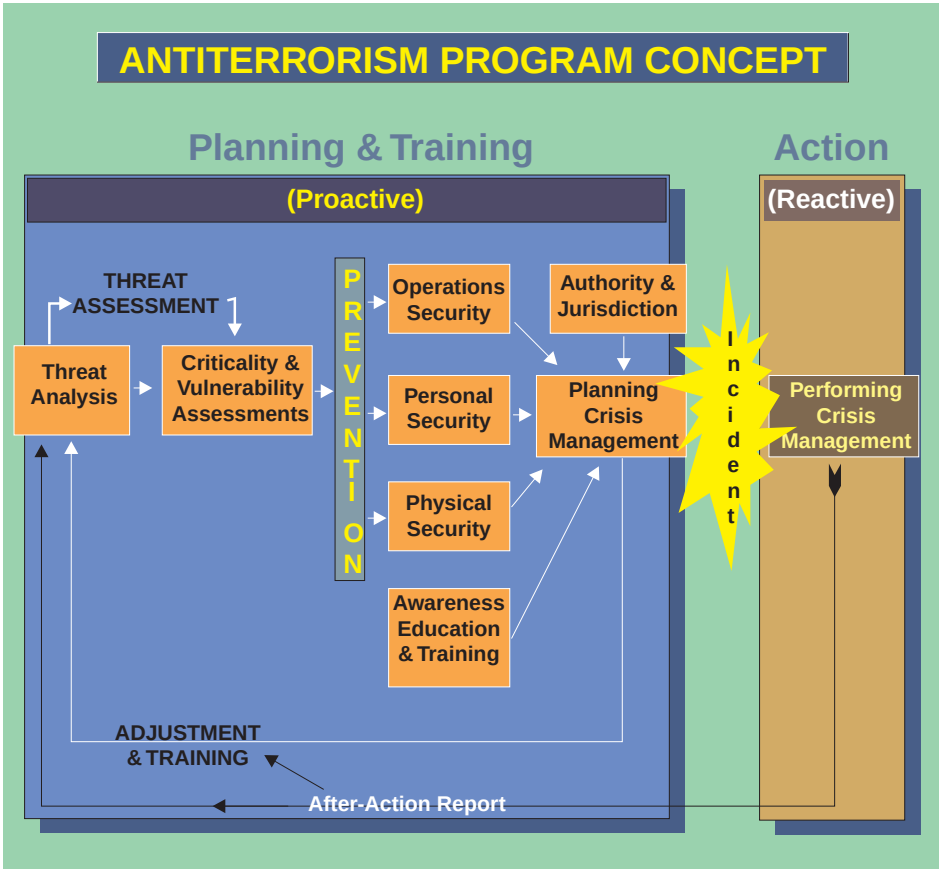
Defensive measures used to reduce the vulnerability of individuals and property to terrorist acts, to include limited response and containment by local military forces. Also called AT. JP 1-02

Combatting terrorism involves actions, including antiterrorism (defensive measures used to reduce the vulnerability to terrorist acts) and counterterrorism (offensive measures taken to prevent, deter, and respond to terrorism), taken to oppose terrorism throughout the entire threat spectrum. (See figure below.) To meet the terrorist threat, an integrated and comprehensive antiterrorism program must be developed and implemented at every echelon of command. The program is designed to foster a protective posture in peacetime (i.e., units performing normal duties and serving in security assistance organizations, peacekeeping missions, or mobile training teams) that will carry over to a wartime environment.

Antiterrorist measures are intended to identify and reduce the risk of loss or damage of potential targets and to develop procedures to detect and deter planned terrorist actions before they take place, thereby reducing the probability of a terrorist event. The measures also encompass the reactive or tactical stage of an incident, including direct contact with terrorists to end the incident with minimum loss of life and property. The antiterrorism program stresses deterrence of terrorist incidents through preventive measures common to all combatant



commands and Services. (See figure below.) The program addresses threat analysis; installation or unit criticality and vulnerability assessments; creation of a threat assessment based on the threat analysis and friendly vulnerabilities; operations security; personnel security; physical security; crisis management planning; employment of tactical measures to contain or resolve terrorist incidents; continuous training and education of personnel; and public affairs planning.



Related Terms

counterterrorism; force protection; terrorism

Source Joint Publications

JP 3-07.2 JTTP for Antiterrorism

APPORTIONMENT (AIR)

The determination and assignment of the total expected air effort by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time. Also called air apportionment.

JP 1-02

Air apportionment is the determination and assignment of the total expected effort by percentage and/or priority that should be devoted to the various air operations and/or geographic areas for a given period of time. Air apportionment allows the joint force commander (JFC) to ensure the weight of the joint air effort is consistent with campaign phases and objectives. Given the many functions that the joint air effort can perform, its area of responsibility/joint operations area-wide application, and its ability to rapidly shift from one function to another, JFCs pay particular attention to its apportionment. JFCs normally apportion the air effort by priority or percentage of effort into geographic areas, against mission-type orders, and/or by categories significant for the campaign. These categories can include, but are not limited to, strategic attack, interdiction, counterair, maritime support, and close air support. After consulting with other component commanders, the joint force air component commander/ JFC staff makes the air apportionment recommendation to the JFC.

Related Terms

Source Joint Publications

JP 3-56.1 Command and Control for Joint Air Operations

AREA AIR DEFENSE COMMANDER

Within a unified command, subordinate unified command, or joint task force, the commander will assign overall responsibility for air defense to a single commander. Normally, this will be the component commander with the preponderance of air defense capability and the command, control, and communications capability to plan and execute integrated air defense operations. Representation from the other components involved will be provided, as appropriate, to the area air defense commander's headquarters. Also called AADC. JP 1-02

The joint force commander (JFC) will normally designate an area air defense commander (AADC). The successful conduct of air defense operations requires the integrated operation of all available air defense systems. Air defense operations must be coordinated with other operations, both on and over land and sea. The responsibilities of the joint force air component commander (JFACC), airspace control authority (ACA), and AADC are interrelated and should normally be assigned to one individual. The functions and responsibilities of the JFACC, ACA, and AADC must be integrated in order to unite joint air operations with joint airspace control and joint air defense operations in support of the JFC's campaign. Designating one component commander as JFACC, AADC, and ACA may simplify coordination required to develop and execute fully integrated joint air operations. If conditions do not permit this assignment, then close coordination between all three positions is essential. The AADC develops the area air defense plan and, after JFC approval, promulgates it throughout the area of responsibility/joint operations area.

Related Terms

air defense; area air defense plan

Source Joint Publications

JP 3-52 Doctrine for Joint Airspace Control in the Combat Zone
JP 3-56.1 Command and Control for Joint Air Operations

AREA AIR DEFENSE PLAN

The area air defense commander develops the area air defense plan and, after JFC approval, promulgates it throughout the area of responsibility/joint operations area. The area air defense plan needs to be written with detailed engagement procedures that are integral to the airspace control plan and operations in the combat zone. Combat zone airspace control and area air defense operations need to plan for operations in a degraded command, control, communications, and computers environment. Detailed engagement procedures and decentralized control procedures (as apply to air defense) are key to operations in a degraded environment. Air defense interface is critical to effective combat zone airspace control. The geographic arrangement of weapons and the location of specific types of air defense operations, as well as specific procedures for identification of aircraft, are important factors to include in the airspace control plan. Other key features to consider are listed in the figure below.

AIRSPACE CONTROL PLAN CONSIDERATIONS

- Procedures that include rules of engagement, disposition of air defense weapon systems such as air defense fighters, air defense artillery, surface-to-air missiles, and air defense command and control operations.
- Air, land, and maritime situations in the area of responsibility / joint operations area such as existing equipment limitations, electronic warfare, and C4 requirements that may adversely affect adherence to the airspace control plan.
- Anticipated restricted areas based on initial deployment of friendly air, land, maritime, and special operations forces and bases.
- Existing air traffic control areas, base defense zones, controlled or uncontrolled airspace, and overflight of neutral nations.
- Mission profiles, combat radii, and IFF or other identification capability of aircraft that will operate in the area of responsibility / joint operations area.
- Enemy air defense weapons capabilities, deployment, and electronic attack and deception capabilities.
- Emergency procedures for aircraft experiencing difficulties (to include IFF problems).
- Procedures for day or night operations and for aircraft experiencing adverse weather.
- Procedures for en route and terminal-area air traffic control procedures for aircraft transitioning to and from the battle area that complement planned combat requirements.
- Procedures to support surge operations requiring high volumes of air traffic.
- Enemy offensive air capabilities. Additionally, the vulnerability of defensive counterair aircraft to enemy surface-to-air missiles and the vulnerability of friendly surface-based air defenses to enemy long-range artillery are important planning and execution considerations.

Related Terms

area air defense commander

Source Joint Publications

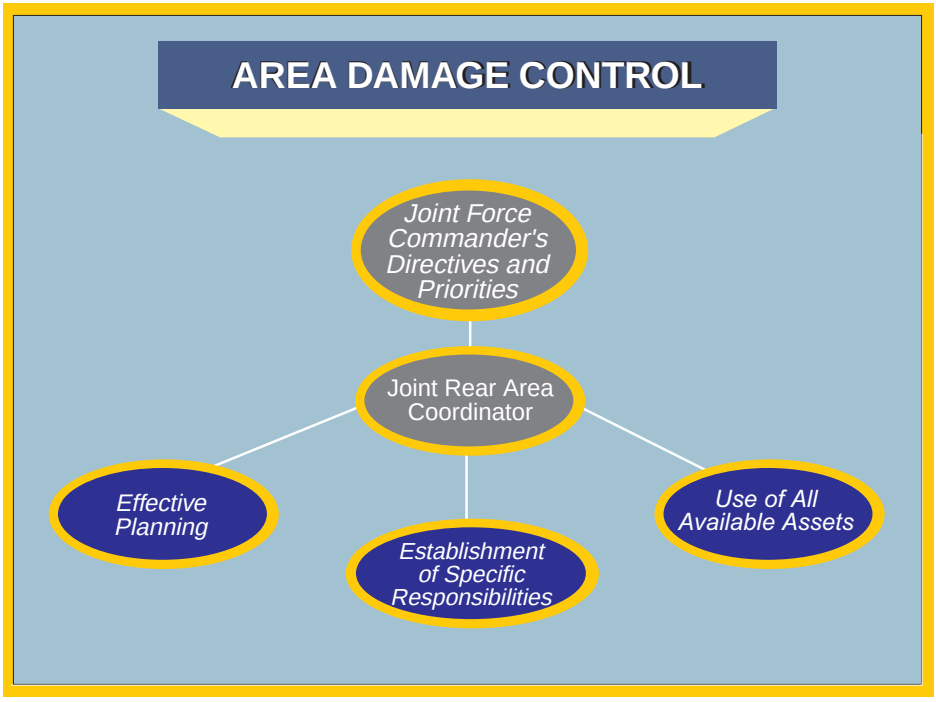
JP 3-52 Doctrine for Joint Airspace Control in the Combat Zone

AREA DAMAGE CONTROL

Measures taken before, during, or after hostile action or natural or manmade disasters, to reduce the probability of damage and minimize its effects.

JP 1-02

General. The improved destructive capabilities of modern weapons systems significantly increase the need for effective damage control. As shown in the figure below, effective planning, establishment of specific responsibilities, and use of all available assets are necessary to conduct area damage control (ADC) and to ensure prevention, containment, and rapid restoration of operations.



Responsibilities. Joint rear area coordinator (JRAC). The JRAC coordinates with appropriate commanders and staffs to ensure ADC operations in the joint rear area are conducted in accordance with the joint force commander's (JFC's) directives and priorities.

Component Commanders. Component commanders are responsible for ensuring ADC plans in their operational areas are developed, prioritized, coordinated, and executed in accordance with the JFC's priorities and concept of operations.

Host Nation (HN). The HN, depending on applicable agreements, may have overall responsibility for ADC within their territorial boundaries. In these circumstances, US forces will retain responsibility for ADC within US base perimeters and be prepared to assist the HN within their unit capabilities with ADC operations outside US base perimeters. Assistance should be provided with the concurrence of the appropriate US command authority and should support the JFC's ADC priorities and concept of operations.

ADC Planning Requirements. Effective ADC planning is decentralized and executed at the lowest level. Base and base cluster defense plans should have ADC annexes identifying responsibilities, priorities, requirements, and procedures for conducting ADC operations. These plans will be coordinated and integrated at the component and subordinate command levels to ensure rapid response and efficient utilization of limited ADC assets. Vulnerability analysis is necessary to ensure that units and facilities are not positioned in such a manner that could place units at unnecessary risk; e.g., a hospital unit should not be within the danger zone of an HN ammunition storage site or fuel facility.

Base and base cluster ADC annexes should identify responsibilities and procedures required before, during, and after an incident. Plans should also include responsibilities for all units occupying the base or located in the base cluster that can make contributions to ADC. Examples include, but are not limited to, military and security police, engineers, ordnance, nuclear, biological, and chemical decontamination or reconnaissance, smoke, civil affairs, maintenance, health service support, command, control, and communications systems, supply, and transportation.

Related Terms

Source Joint Publications

JP 3-10 Doctrine for Joint Rear Area Operations

AREA OF INTEREST

That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory to the objectives of current or planned operations. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission. JP 1-02

Joint force commanders at all levels can designate areas of interest (AIs) to monitor enemy activities outside the operations area. An AI is usually larger in size than the operational area and encompasses areas from which the enemy can act to affect current or future friendly operations.

Related Terms

area of influence

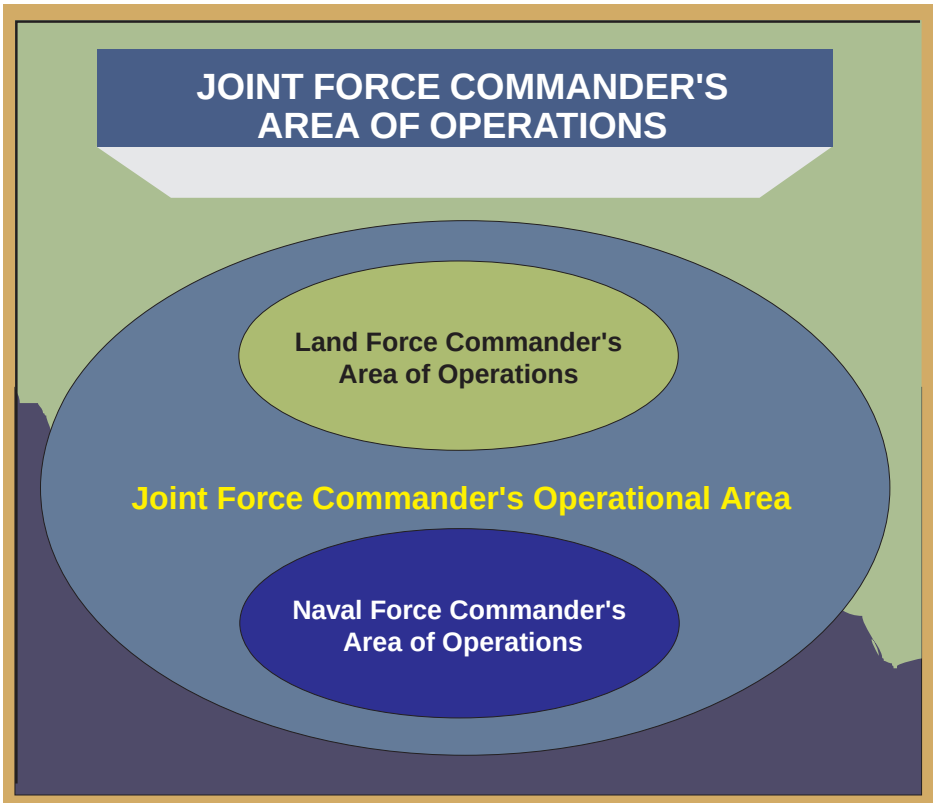
Source Joint Publications

JP 3-0 Doctrine for Joint Operations

AREA OF OPERATIONS

An operational area defined by the joint force commander for land and naval forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. JP 1-02

Joint force commanders (JFCs) may define areas of operations (AOs) for land and naval forces. (See figure below.) AOs do not typically encompass the entire operational area of the JFC, but should be large enough for component commanders to accomplish their missions and protect their forces. Component commanders with AOs typically designate subordinate AOs within which their subordinate forces operate. These commanders employ the full



range of joint and Service doctrinal control measures and graphics to delineate responsibilities, deconflict operations, and promote unity of effort.

The size, shape, and positioning of land or naval force AOs will be established by JFCs based on their concept of operations and the land or naval force commander's requirement for depth to maneuver rapidly and to fight at extended ranges. Within these AOs, land and naval operational force commanders are designated the supported commander and are responsible for the synchronization of maneuver, fires, and interdiction. To facilitate this synchronization, such commanders designate the target priority, effects, and timing of interdiction operations within their AOs.

Related Terms

area of responsibility; joint operations area; joint rear area; joint special operations area.

Source Joint Publications

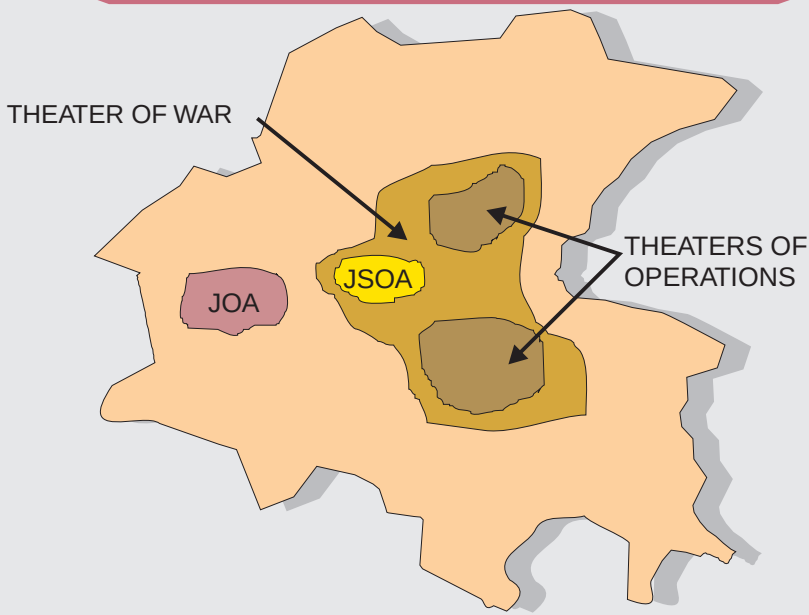
JP 3-0 Doctrine for Joint Operations

AREA OF RESPONSIBILITY

1. The geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations. 2. In naval usage, a predefined area of enemy terrain for which supporting ships are responsible for covering by fire on known targets or targets of opportunity and by observation. Also called AOR. JP 1-02

An area of responsibility (AOR) is the geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations. Only commanders of combatant commands are assigned AORs. Subordinate joint force commanders are normally assigned joint operations areas. A geographic combatant commander's AOR is the assigned theater. An example of a geographic combatant commander's AOR is shown in the figure below.

OPERATIONAL AREAS WITHIN A THEATER



This example depicts a combatant commander's AOR, also known as a theater. Within the AOR, the CINC has designated a theater of war with two subordinate theaters of operations. Also within the theater of war is a JSOA. To handle a situation outside the theater of war, the CINC has established a JOA, within which a JTF will operate. JOAs could also be established within the theater of war or theaters of operations.

Related Terms

area of operations; joint operations area; joint rear area; joint special operations area

Source Joint Publications

JP 0-2	Unified Action Armed Forces (UNAAF)
JP 3-0	Doctrine for Joint Operations

AREA STUDIES

During planning phases, civil affairs (CA) forces receive their intelligence support from the joint force or Service component force to which they are assigned or attached. The basic intelligence document for CA is the area study. Area studies, as detailed as time and source material permit, should be prepared on each country or region in which military operations are contemplated. Area studies should be continually reviewed and revised prior to

commitment of forces. After operations commence, these studies should constitute the basis of the collection of more current and comprehensive data from on-site surveys and assessments by CA personnel.

Examples of the CA-relevant essential elements of information that area studies provide on a given region, country, or operational area include the following:

- the nature of the host nation government, background and attitudes of key members, and degree of assistance that can be expected;
- the nature of the population, including demographics, religion, distribution, and attitudes toward the US and US forces;
- the location and composition of material stockpiles, availability of civilian transportation, and points of contact to access these facilities, goods, and services;
- the structure, orientation, capabilities, and reliability of indigenous public security or safety organizations.

Related Terms

civil affairs

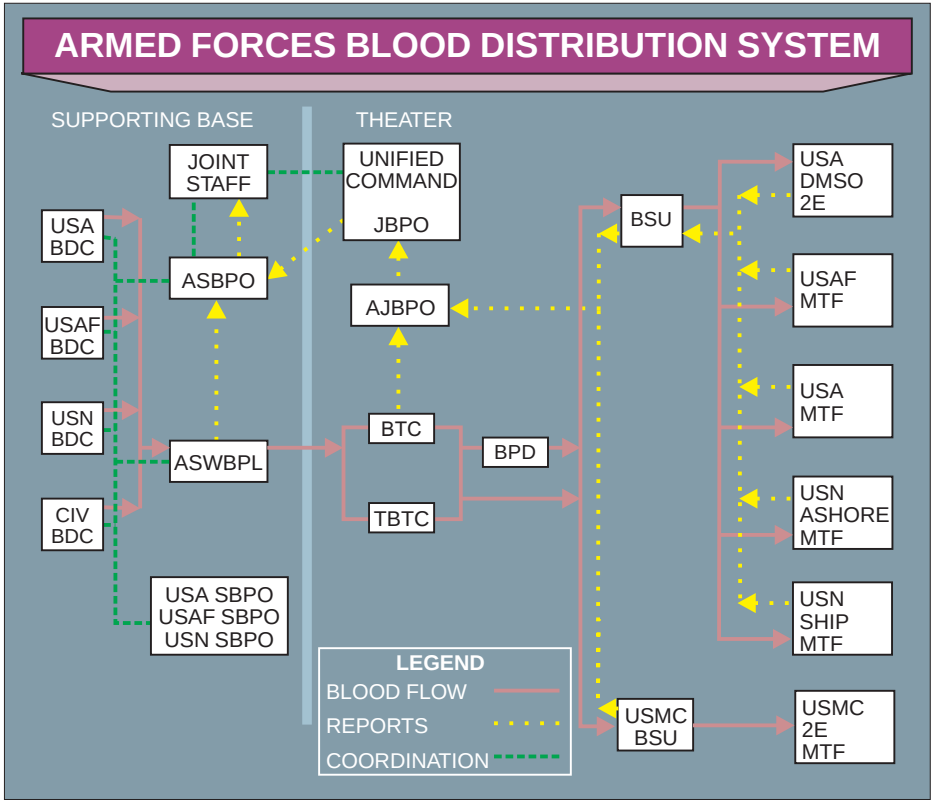
Source Joint Publications

JP 3-57 Doctrine for Joint Civil Affairs

ARMED SERVICES BLOOD PROGRAM OFFICE

The Armed Services Blood Program Office (ASBPO), established by the Assistant Secretary of Defense for Health Affairs, is responsible for the coordination of the blood programs of the Military Services and the combatant commands. The Armed Services Blood Program provides an orderly system for collection, storage, and distribution of blood products across the range of military operations. (See figure below.) The primary responsibility of the ASBPO is to ensure blood products, in the required types and amounts, reach the theater in a ready-to-use condition.

Each theater has a standard jointly operated blood distribution system. A Joint Blood Program Office (JBPO) is established within the joint force surgeon's office and functions as part of the staff. The JBPO is the single manager for blood products in the combatant command and is responsible for management and coordination of the total joint blood products requirements and capabilities in the theater. Each theater is subdivided and coordinated by an Area Joint Blood Program Office.



Related Terms

health service support; Joint Blood Program Office

Source Joint Publications

JP 4-02 Doctrine for Health Service Support in Joint Operations

ARMS CONTROL

A concept that connotes: a. any plan, arrangement, or process, resting upon explicit or implicit international agreement, governing any aspect of the following: the numbers, types, and performance characteristics of weapon systems (including the command and control, logistics support arrangements, and any related intelligence-gathering mechanism); and the numerical strength, organization, equipment, deployment, or employment of the armed forces retained by the parties (it encompasses disarmament); and b. on some occasions, those measures taken for the purpose of reducing instability in the military environment. JP 1-02

Arms control is a concept that connotes any plan, arrangement, or process, resting upon explicit or implicit international agreement. Arms control governs any aspect of the following: the numbers, types, and performance characteristics of weapon systems (including the command and control, logistic support arrangements, and any related intelligence gathering mechanism), and the numerical strength, organization, equipment, deployment or employment

of the armed forces retained by the parties (it encompasses disarmament). Additionally, it may connote those measures taken for the purpose of reducing instability in the military environment.

Although it may be viewed as a diplomatic mission, the military can play an important role. For example, US military personnel may be involved in verifying an arms control treaty; seizing weapons of mass destruction (nuclear, biological, and chemical or conventional); escorting authorized deliveries of weapons and other materials (such as enriched uranium) to preclude loss or unauthorized use of these assets; or dismantling, destroying, or disposing of weapons and hazardous material. All of these actions help reduce threats to regional security. Other examples include military support for the Conventional Armed Forces in Europe Treaty by conducting and hosting site inspections, participating in military data exchanges, and implementing armament reductions. Finally, the US military's implementation of the Vienna Document 1992 confidence and security building measures such as unit/formation inspections, exercise notifications/observations, air and ground base visits, and military equipment demonstrations are further examples of arms control.

Related Terms

military operations other than war

Source Joint Publications

JP 3-07 Joint Doctrine for Military Operations Other Than War

ARMY AIR-GROUND SYSTEM

The Army system which provides for interface between Army and tactical air support agencies of other Services in the planning, evaluating, processing, and coordinating of air support requirements and operations. It is composed of appropriate staff members, including G-2 air and G-3 air personnel, and necessary communication equipment. JP 1-02

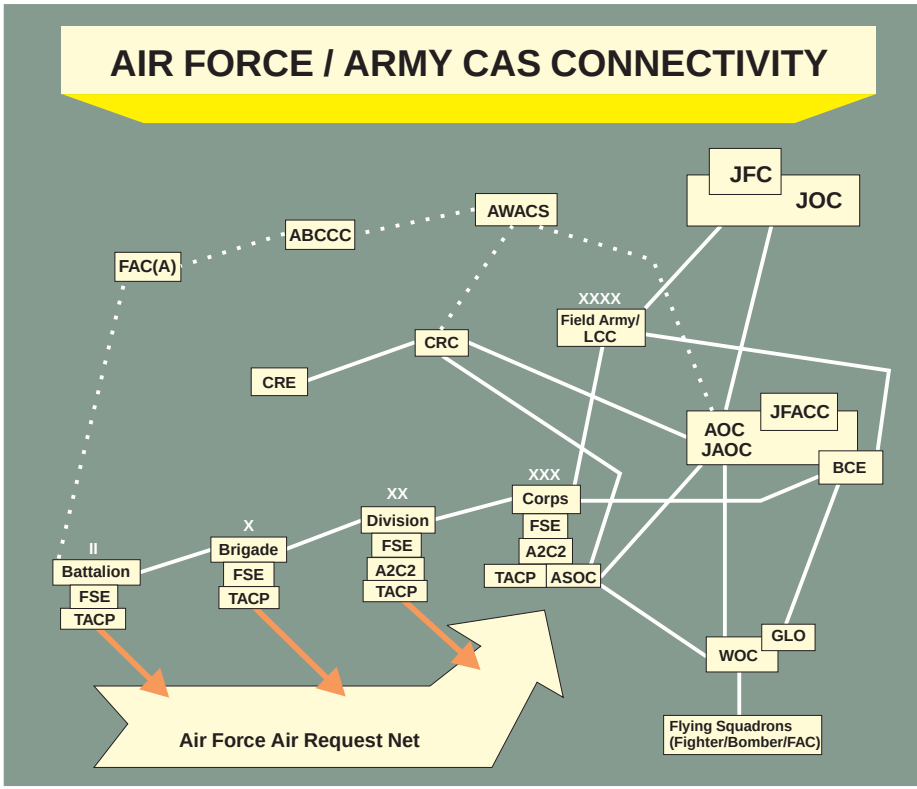
General. The Army air-ground system (AAGS) (see figure below) begins at the field army level, and extends down through all echelons to the maneuver battalion. AAGS coordinates and integrates both Army component aviation support and close air support (CAS) with Army ground maneuver.

Battlefield Coordination Element (BCE). The Army component commander establishes a BCE to interface and provide liaison with the joint force air component commander or Commander, Air Force Forces. It is the senior Army airspace command and control element. The BCE is collocated with the joint air operations center or air operations center. Preplanned requests for CAS are forwarded through Army command channels to the BCE.

Corps Tactical Operations Center (CTOC). The CTOC synchronizes the entire corps battle, including all planning and authorization for CAS. It is the final approving authority for CAS within the Corps.

Corps Tactical Command Post. The tactical command post primarily concentrates on the conduct of the corps' current operations. The Corps Tactical Command Post is usually the approving authority for immediate CAS requests or diversions of preplanned missions within the Corps.

Corps Fire Support Element/Air Support Operations Center Interface. The corps fire support element (FSE) provides interface and effects coordination between the corps and the air support operations center (ASOC). The FSE controls all fires, including CAS, within the corps and coordinates the use of airspace with the corps' Army airspace command and



control element collocated with the FSE. The FSE and ASOC synchronize CAS for the corps. CAS is coordinated through the corps air liaison officer, ASOC, and the corps tactical air control party in conjunction with the Army or Marine Corps component operations staff officer (Air). If Navy or Marine Corps CAS is available, the air/naval gunfire liaison company provides the division, brigade, and battalion FSEs with supporting arms liaison.

Related Terms

battlefield coordination element; theater air control system

Source Joint Publications

JP 3-09.3 JTTP for Close Air Support (CAS)

ARMY SPECIAL OPERATIONS FORCES

Those active and reserve component Army forces designated by the Secretary of Defense that are specifically organized, trained, and equipped to conduct and support special operations. Also called ARSOF. JP 1-02

General. Although all Army forces have an inherent capability to support special operations (SO), Army units specifically designated by the Secretary of Defense are prepared, trained, and task-organized especially for SO. Core special operations forces (SOF) designated by the Secretary of Defense include active and reserve component special forces (SF), Ranger, and special operations aviation (SOA). In addition, the Secretary of the Army has designated civil affairs (CA) and psychological operations (PSYOP) forces as Army special operations

forces (ARSOF). The SF group is a multipurpose combat force organized, trained, and equipped to plan, conduct, and support a variety of SO in all operational environments across the range of military operations. Although principally structured for unconventional warfare (UW), SF units are capable of task-organizing their composition to meet more specific requirements.

Rangers. Rangers are rapidly deployable airborne light infantry organized and trained to conduct highly complex joint direct action (DA) operations in coordination with or in support of other SO units of all Services. Also, they can execute DA operations in support of conventional missions conducted by a combatant commander and can operate as conventional light infantry when properly augmented with other elements of combined arms.

Special Operations Aviation. SOA units are specialized Army aviation assets dedicated to the conduct of SO. SOA units are organized into both single aircraft type and composite battalions that provide a mix of light and medium lift and limited light attack capabilities.

Civil Affairs Forces. CA forces plan and conduct civil-military operations in support of SOF and conventional forces. Army CA units are regionally oriented, language qualified, and have the capability to train, advise, and assist US and indigenous forces in the conduct of foreign internal defense (FID), UW, and humanitarian assistance (HA) or CA missions.

PSYOP Forces. Task-organized elements from either strategic or theater PSYOP forces may be provided to support joint or Service SOF and conventional forces. Frequently, this support is imperative during FID, UW, and HA or CA but may be equally applicable during DA, counterdrug, or counterterrorism activities, either as direct support or to provide operational cover.

Special Mission Units. The National Command Authorities (NCA) have directed establishment and maintenance of selected units specifically organized, trained, and equipped to conduct a range of highly classified and usually compartmented SO missions across the operational continuum. They are under direct supervision of the highest command levels, often the NCA. These units are prepared and trained to execute a variety of covert and/or clandestine SO missions while maintaining absolute minimum individual and organizational visibility during day-to-day operations.

Special Operations Coordination Elements (SOCCORDs). SOCCORDs serve as a permanent staff functional cell within Army or Marine Corps component operations. This cell reinforces integration of ARSOF into corps plans and operations. The SOCCORD does not exercise command and control of ARSOF, but compliments existing ARSOF mechanisms.

SOF Support Units. The US Army maintains combat support and combat service support elements and units capable of supporting and sustaining SOF.

Related Terms

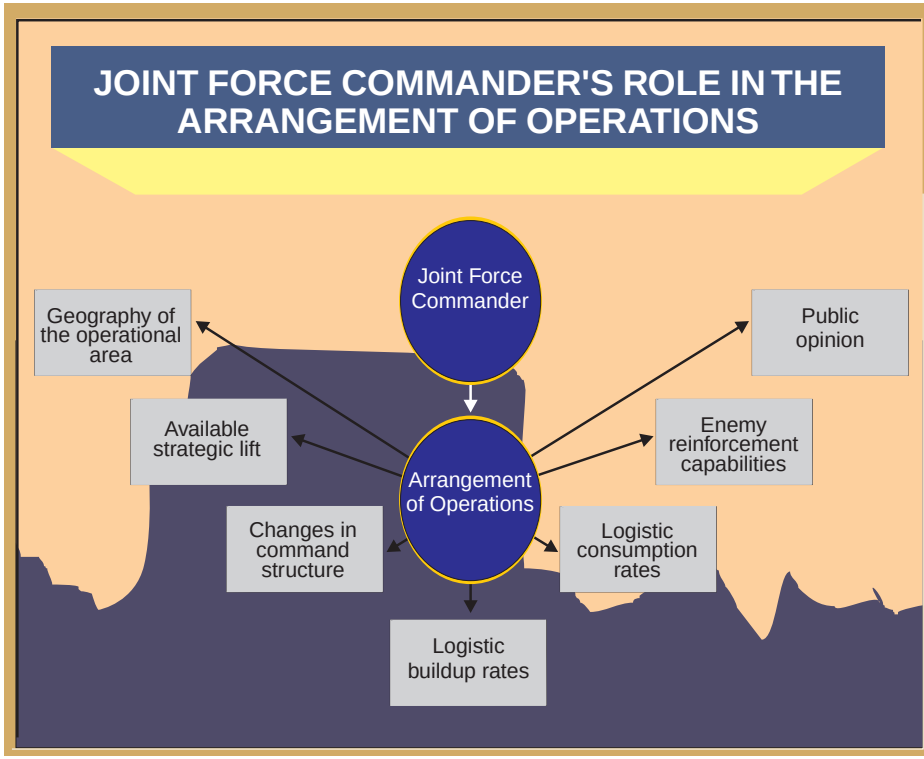
special operations

Source Joint Publications

JP 3-05 Doctrine for Joint Special Operations

ARRANGING OPERATIONS

General. Joint force commanders (JFCs) must determine the best arrangement of major operations. This arrangement will often be a combination of simultaneous and sequential operations to achieve the desired end state conditions quickly and at the least cost in personnel and other resources. As shown in the figure below, commanders consider a variety of factors when determining this arrangement, including geography of the operational area, available strategic lift, changes in command structure, logistic buildup and consumption rates, enemy



reinforcement capabilities, and public opinion. Thinking about the best arrangement helps determine tempo of activities in time and space.

The dynamic nature of modern warfare that includes projection of forces complicates decisions concerning how to best arrange operations. During force projection operations, for example, a rapidly changing enemy situation may cause the commander to alter the planned arrangement of operations even as forces are deploying. The arrangement that the commander chooses should not foreclose future options.

Phases. The arrangement of major operations relates directly to the commander's decision on phasing. A phase represents a period during which a large portion of the forces are involved in similar or mutually supporting activities (deployment, for example). A transition to another phase — such as a shift from deployment to defensive operations — indicates a shift in emphasis. Phasing may be sequential or concurrent. Phases may overlap. The point where one phase stops and another begins is often difficult to define in absolute terms.

During planning, commanders establish conditions for transitioning from one phase to another. The commander adjusts the phases to exploit opportunities presented by the enemy or to react to unforeseen situations.

Phasing assists commanders to think through the entire operation and to define requirements in terms of forces, resources, and time. The primary benefit of phasing is that it assists commanders in achieving major objectives, which cannot be attained all at once, by planning manageable subordinate operations to gain progressive advantages, and so achieving the major objectives as quickly and affordably as possible. Campaign phasing should consider aspects such as prehostilities (including predeployment activities), lodgment, decisive combat and stabilization, follow-through, and posthostilities (including redeployment).

Prehostilities Phase. Actions during a prehostilities phase may be for deterrence or to seek to set the terms for battle and enhance friendly and limit enemy freedom of action. The friendly force should not seek battle until it has set the terms or established the conditions for battle in its favor and should avoid being rushed into battle before such conditions are established, if possible. During predeployment activities, JFCs tailor forces for deployment. The command, control, communications, computers, and intelligence and logistic requirements of the force must be developed during the predeployment phase in order to support JFC concepts of operations. When in-place forces are not sufficient and/or are not appropriate for the envisioned operation, early determination of the forces required and the order in which they are needed, based on the JFC's concept of operations, assists in identifying the time required to deploy the force. Sealift and airlift capabilities are critical to JFC concepts.

Lodgement Phase. A lodgment phase allows the movement and buildup of a decisive combat force in the operational area. In operations during peacetime, deployment will normally include movements to host-nation air or sea ports. In operations conducted before and during combat, initial deployment may require forcible entry, followed by the occupation and expansion of lodgment areas.

Decisive Combat and Stabilization Phase. A decisive combat and stabilization phase initially focuses on the rapid buildup of joint force capabilities. The appropriate sequencing of forces into the operational area can contribute greatly to the stabilization of the situation. Further, deployment of forces may serve as a deterrent to hostilities, but if deterrence fails, deployment will permit JFCs to build up full dimensional capabilities rapidly to conduct decisive action as early as possible. Such decisive action focuses on winning, that is, achieving the objectives defined by the National Command Authorities and the JFC, and may include control of enemy territory and population and destruction of the enemy's ability and will to continue.

Follow-Through Phase. During a follow-through phase, JFCs synchronize joint force activities to bring the operation to a successful conclusion. Follow-through includes those actions that ensure the political objectives are achieved and sustained. Part of this phase may be to ensure the threat (military and/or political) is not able to resurrect itself. In essence, such a phase focuses on ensuring that the results achieved endure. During this phase, joint forces may conduct operations in support of other governmental agencies. JFCs continuously assess the impact of current operations during hostilities on the termination objectives. The outcome of military operations should not conflict with the long-term solution to the crisis.

Posthostilities and Redeployment Phase. During the posthostilities and redeployment phase, JFCs may retain responsibility for operations or they may transfer control of the situation to another authority and redeploy their forces. JFCs should identify posthostilities requirements as early as possible to best accomplish these missions and simultaneously redeploy assets no longer needed to resolve the crisis. Logistics is crucial to phasing. Joint force planners consider establishing logistic bases, opening and maintaining lines of communications, establishing intermediate logistic bases to support new phases, and defining priorities for services and support. Logistics, then, is key to arranging the operations of campaigns and should be planned and executed as a joint responsibility.

Changes in phases at any level can represent a period of vulnerability for the force. At this point, missions and task organizations often change. The careful planning of branches and sequels can reduce the risk associated with transition between phases.

Branches and Sequels. No plan of operations can be projected with confidence much beyond the initial stages of the operation. Commanders build flexibility into their plans to preserve freedom of action in rapidly changing conditions. Branches and sequels directly

relate to the concept of phasing. Their proper use can add flexibility to a campaign or major operation plan.

Branches. Branches are options built into the basic plan. Such branches may include shifting priorities, changing unit organization and command relationships, or changing the very nature of the joint operation itself. Branches add flexibility to plans by anticipating situations that could alter the basic plan. Such situations could be a result of enemy action, availability of friendly capabilities or resources, or even a change in the weather or season within the operational area.

Sequels. Sequels are subsequent operations based on the possible outcomes of the current operation — victory, defeat, or stalemate. At the campaign level, phases can be viewed as the sequels to the basic plan.

Related Terms

operational art; branches and sequels; phases

Source Joint Publications

JP 3-0 Doctrine for Joint Operations

ARRIVAL/DEPARTURE AIRFIELD CONTROL GROUPS

Army arrival/departure airfield control groups (A/DACGs) coordinate and control the movement of Army component personnel and materiel through airlift terminals. Comprised mainly of personnel and resources from the moving units, they are provisional units, task-organized to reflect the type of move and degree of support available at the terminal. The A/DACG is the moving unit's point of contact with local Air Force base and tanker airlift control element commanders and personnel. When units from more than one component will transit a terminal simultaneously, the joint force commander should direct one component to provide the A/DACG. This will normally be the component with the largest movement requirement, and augmented, as necessary, by the other components. As the theater matures or when airlift mission requirements increase, an air terminal movement control team should be phased in to replace the arrival airfield control group to execute port clearance missions. Normally, this transition occurs when the airfield is designated an aerial port of debarkation for the theater.

Related Terms

Source Joint Publications

JP 3-17 JTTP for Theater Airlift Operations

ART OF LOGISTICS

The art of logistics is how to integrate the strategic, operational, and tactical sustainment efforts within the theater, while scheduling the mobilization and deployment of units, personnel, and supplies in support of the employment concept of a geographic combatant commander. The relative combat power military forces can bring to bear against an enemy is constrained by a nation's capability to deliver forces and materiel to the required points of application across the range of military operations. Commanders may have more combat forces than available logistic resources to move and sustain desired operations. A nation's capability to deliver logistic resources has historically been a major limiting factor in military operations. This may be especially true in future joint operations, when demands for military resources become highly competitive. Operational planners must understand the importance of effective

and integrated logistics and mobilization planning for joint operations at a time when demands on military resources are increasing.

"Strategy is to war what the plot is to the play; Tactics is represented by the role of the players; logistics furnishes the stage management, accessories, and maintenance. The audience, thrilled by the action of the play and the art of the performers, overlooks all the cleverly hidden details of stage management."

LtCol George C. Thorpe: Pure Logistics 1917

Related Terms

logistics, logistics support, operational reach

Source Joint Publications

JP 4-0 Doctrine for Logistic Support of Joint Operations

ASSESSMENT

1. Analysis of the security, effectiveness, and potential of an existing or planned intelligence activity. 2. Judgment of the motives, qualifications, and characteristics of present or prospective employees or "agents." JP 1-02

The Chairman of the Joint Chiefs of Staff has the responsibility to monitor and assess the readiness of US military forces to fight and meet the demands of the National Military Strategy. The Chairman's Readiness System (CRS) supports the Chairman in meeting this responsibility. Joint operation plans provide the foundation for the CRS — they are the standards against which readiness is measured in the Joint Monthly Readiness Review. This senior forum is designed to assess both Unit Readiness, as reported by the Services, and Joint Readiness, as reported by the combatant commanders. The end product of the CRS is senior level consensus on the readiness of the force to successfully execute Joint Strategic Capabilities Plan tasks. Significant shortfalls or deficiencies are assessed in terms of risk and may be remedied through operational or programmatic actions. Joint operation plans have a major role in the process to address remedies to shortfalls and deficiencies.

Joint operation planning prepares for the use of existing capabilities to achieve objectives defined in national military strategy. The resultant plans are a measurement of the Nation's ability to successfully prosecute the national military strategy within the constraints of available forces and resources. This measurement provides a means of assessing the balance between strategy and capabilities, determining risks, and focusing the acquisition of additional resources and capabilities.

As the principal military adviser to the National Command Authorities, the Chairman of the Joint Chiefs of Staff is responsible for recommending national military strategy to attain national security objectives and for assessing the national military capability and readiness to perform the missions identified in the strategy.

Assessments derived through joint operation planning provide insight into the strengths and deficiencies of the Nation's existing military capabilities. Consequently, they can be an invaluable source of information for force development planning and the development of national military strategy. The greatest use of joint operation planning as a vehicle for assessing capabilities and influencing other defense planning is realized when deliberate planning is accomplished within a disciplined planning cycle that complements the Planning, Programming and Budgeting System (PPBS) and the Joint Strategic Planning System (JSPS). These three

DOD planning systems must be integrated within a mutually supporting, complementary process. Joint operation planning conducted in response to the strategic direction provided by the JSPS must produce approved plans within a time frame that permits consideration of the results of that planning in the next succeeding strategy development evolution. Conversely, the JSPS, in conjunction with the PPBS, must provide timely strategic direction that allows the necessary time for the detailed development of adequate and feasible operation plans. A disciplined deliberate planning process, coordinated with PPBS and JSPS and supported by an effective Joint Operation Planning and Execution System, is essential to exploiting the full potential of joint operation planning as a way to assess capabilities and program improvement.

"Again and again we have owed peace to the fact that we were prepared for war."

Theodore Roosevelt: Lecture at the Naval War College, June 1897

Related Terms

joint operation planning

Source Joint Publications

JP 5-0 Doctrine for Planning Joint Operations

ASSIGNED, APPORTIONED, AND ALLOCATED FORCES

General. Joint operation planning uses uniform categories to define the availability of forces and resources for planning and conducting joint operations. Availability categories are assigned, apportioned, and allocated.

Assigned. Assigned forces and resources are those in being that have been placed under the combatant command (command authority) of a unified commander by the Secretary of Defense in his "Forces For Unified Commands" memorandum. Forces and resources so assigned are available for normal peacetime operations of that command.

Apportioned. Apportioned forces and resources are those assumed to be available for deliberate planning as of a specified date. They may include those assigned, those expected through mobilization, and those programmed. They are apportioned by the Joint Strategic Capabilities Plan for use in developing deliberate plans and may be more or less than the forces actually allocated for execution planning.

Allocated. Allocated forces and resources are those provided by the National Command Authorities for execution planning or actual implementation. The allocation of forces and resources is accomplished through procedures established for crisis action planning. In actual implementation, allocated augmenting forces become assigned or attached forces when they are transferred or attached to the receiving combatant commander.

Related Terms

joint operation planning

Source Joint Publications

JP 5-0 Doctrine for Planning Joint Operations

ASSIGNMENT AND TRANSFER OF FORCES

All Service forces (except as noted in title 10, Section 162) are assigned to combatant commands by the Secretary of Defense "Forces for Unified Commands" memorandum. A

force assigned or attached to a combatant command may be transferred from that command only as directed by the Secretary of Defense and under procedures prescribed by the Secretary of Defense and approved by the President. Establishing authorities for subordinate unified commands and joint task forces may direct the assignment or attachment of their forces to those subordinate commands as appropriate. As shown in the figure below, forces, not command relationships, are transferred between commands. When forces are transferred, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over those forces must be specified.

The combatant commander exercises combatant command (command authority) (COCOM) over forces assigned or reassigned by the National Command Authorities (NCA). Subordinate joint force commanders will exercise operational control (OPCON) over assigned or reassigned forces. Forces are assigned or reassigned when the transfer of forces will be permanent or for an unknown period of time, or when the broadest level of command and control is required or desired. OPCON of assigned forces is inherent in COCOM and may be delegated within the combatant command by the commander in chief of the combatant command or between combatant commands by the Secretary of Defense.

The combatant commander normally exercises OPCON over forces attached by the NCA. Forces are attached when the transfer of forces will be temporary. Establishing authorities

ASSIGNMENT AND TRANSFER OF FORCES TO A JOINT FORCE

- **Forces, not command relationships, are transferred between commands. When forces are transferred, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over those forces must be specified.**
- **When the transfer of forces to a joint force will be permanent (or for an unknown but long period of time) the forces should be reassigned. Combatant commanders will exercise combatant command (command authority) and subordinate joint force commanders (JFCs) will exercise operational control (OPCON) over reassigned forces.**
- **When transfer of forces to a joint force will be temporary, the forces will be attached to the gaining command and JFCs will exercise OPCON or tactical control, as appropriate, over the attached forces.**
- **Establishing authorities for subordinate unified commands and joint task forces direct the assignment or attachment of their forces to those subordinate commands as appropriate.**

for subordinate unified commands and joint task forces will normally direct the delegation of OPCON over forces attached to those subordinate commands.

In accordance with the "Forces for Unified Commands" and the "Unified Command Plan," except as otherwise directed by the President or the Secretary of Defense, all forces operating within the geographic area assigned to a combatant command shall be assigned or attached to and under the command of the commander of that command. Forces directed by the President or the Secretary of Defense may conduct operations from or within any geographic area as required for accomplishing assigned tasks, as mutually agreed by the commanders concerned or as directed by the President or the Secretary of Defense. Transient forces do not come under the chain of command of the area commander solely by their movement across area of responsibility/joint operations area boundaries.

Related Terms

combatant command (command authority); operational control

Source Joint Publications

JP 0-2 Unified Action Armed Forces (UNAAF)

ASYMMETRIC

The properly functioning joint force is powerful in asymmetric attack, posing threats from a variety of directions with a broad range of weapon systems to stress the enemy's defenses. The land attack on a submarine pen, the sea-launched cruise missile strike or special operations force raid against a key air defense radar, the air strike against a vital ground transportation node — such asymmetric attacks afford devastating ways to attack or create enemy weaknesses and can avoid casualties and save resources.

Force interaction with regard to enemy forces is another way for joint force commanders (JFCs) to achieve concentration in the various dimensions. JFCs arrange symmetrical and asymmetrical actions to take advantage of friendly strengths and enemy vulnerabilities and to preserve freedom of action for future operations. The history of joint operations highlights the enormous lethality of asymmetrical operations and the great operational sensitivity to such threats. Asymmetrical actions that pit joint force strengths against enemy weaknesses and maneuver in time and space can provide decisive advantage.

Asymmetrical operations are particularly effective when applied against enemy forces not postured for immediate tactical battle but instead operating in more vulnerable aspects — operational deployment and/or movement, extended logistic activity (including rest and refitting), or mobilization and training (including industrial production). Thus, JFCs aggressively seek opportunities to apply asymmetrical force against an enemy in as vulnerable an aspect as possible — air attacks against enemy ground formations in convoy (the air and special operations forces interdiction operations against German attempts to reinforce its forces in Normandy), naval attacks against troop transports (US attacks against Japanese reinforcement of Guadalcanal), and land operations against enemy naval, air, or missile bases (allied maneuver in Europe in 1944 to reduce German submarine bases and V-1 and V-2 launching sites). There are literally dozens of potential modes of attack to be considered as JFCs plan the application of air, land, sea, space, and special operations forces against the various aspects of enemy capabilities.

Related Terms

leverage

Source Joint Publications

JP 1	Joint Warfare of the Armed Forces of the United States
JP 3-0	Doctrine for Joint Operations

AUTOMATED INTELLIGENCE DATA BASE

Data bases and automated information systems should be used to enhance rather than replace human ingenuity in analyzing and producing intelligence. Intelligence data bases are used by analysts to assess a situation and reach conclusions, often in support of dynamic, near real time events. Data bases consist of information on orders of battle, characteristics of equipment, installations and facilities, and military geography. To be useful, automated systems need to provide data that are current, tailored, or adaptable to the missions, accessible, interconnected, and interoperable. These data bases should be accessible by a joint intelligence workstation.

Related Terms

intelligence

Source Joint Publications

JP 2-0	Joint Doctrine for Intelligence Support to Operations

BALANCE

Balance is the maintenance of the force, its capabilities, and its operations in such a manner as to contribute to freedom of action and responsiveness. Balance refers to the appropriate mix of forces and capabilities within the joint force as well as the nature and timing of operations conducted.

Joint force commanders (JFCs) strive to maintain friendly force balance while aggressively seeking to disrupt an enemy's balance by striking with powerful blows from unexpected directions or dimensions and pressing the fight. Deception, special operations, manipulation of the electromagnetic spectrum, direct attack of enemy strategic centers of gravity, interdiction, and maneuver all converge to confuse, demoralize, and destroy the opponent. Denial of enemy reconnaissance, intelligence, surveillance, and target acquisition activities contributes to the protection of friendly forces. Even as the joint force defeats one enemy force, it prepares to turn and strike another. High-tempo joint operations set the conditions for battle. JFCs prepare to shift as conditions change and new challenges are presented. Through continuous planning and wargaming, the commander strives never to be without options. JFCs designate priority efforts and establish appropriate command relationships to assist in maintaining the balance of the force.

Preserving the responsiveness of component capabilities is central to operational art. Combinations of operations and organization of the joint force should maintain or expand force responsiveness, not inhibit it. Decentralization of authority can contribute to responsiveness by reducing the distance in time and space between decision makers and ongoing operations.

Related Terms

operational art

Source Joint Publications

JP 3-0 Doctrine for Joint Operations

BARRIERS, OBSTACLES, AND MINE WARFARE

General. Employment of barriers, obstacles, and mine warfare can, in concert with other capabilities, enhance a commander's ability to mass combat power, sustain the force, conduct offensive or defensive operations, achieve surprise, and use key terrain, airfields, or sea routes. A joint force commander must consider both friendly and enemy employment of these capabilities in preparing plans and conducting operations. (See figure below.)

Advantages. Barrier, obstacle, and minefield employment can provide the capability to inflict significant equipment and psychological damage and personnel casualties on the enemy, with minimal or no risk to friendly forces; extend, strengthen, and deepen other defensive and offensive measures to support the concept of operations; immobilize the enemy until barriers, obstacles, or minefields can be bypassed, breached, or cleared; exploit geographic features; free forces for other employment; discern enemy intentions — commitment of enemy forces into a minefield is a detectable indication of intent; and create uncertainty for the enemy commander.

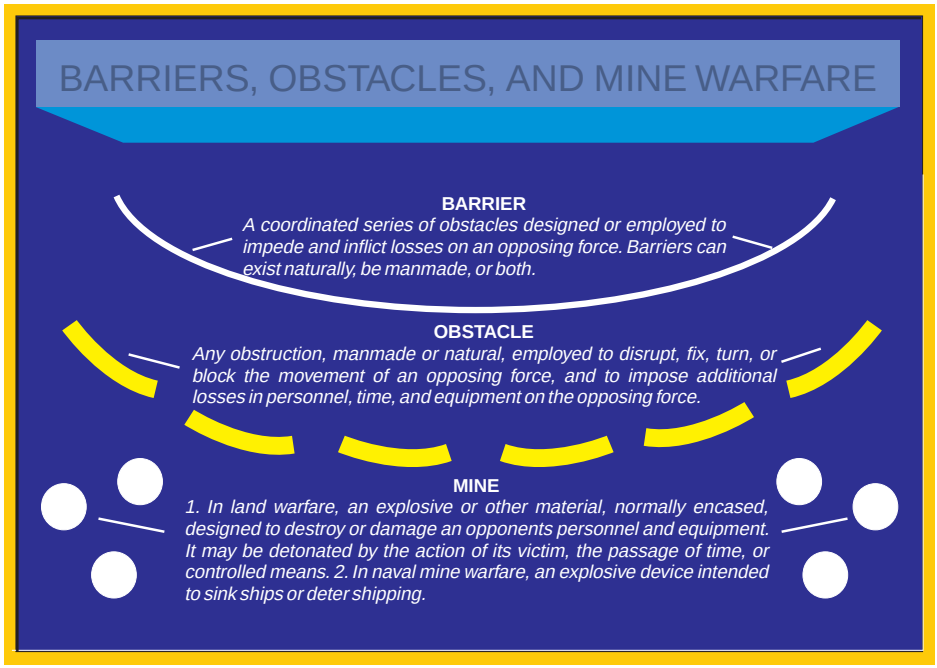
Disadvantages. The disadvantages of using barriers, obstacles, and minefields are their creation and removal can consume a significant amount of time, materiel, equipment, and transportation and will be manpower intensive and hazardous; they can be bypassed, breached,

or cleared; they can cause casualties to friendly forces and noncombatants, as well as limit friendly mobility; and defensive minefields must be rendered safe following their operational usefulness.

Levels of Employment.

Strategic Employment. Before hostilities, barriers, obstacles, and minefields can enhance deterrence without posing an offensive threat. Defensive employment along a hostile land border can demonstrate friendly resolve. Maritime defensive and protective mining can help protect friendly ports and waters. Prehostility employment would be as directed by the National Command Authorities (NCA). NCA determination would be based, in part, on the political signals sent and on concurrence by affected friendly nations. Should deterrence fail, offensive maritime mining of enemy ports and waters can constrict enemy seaborne economic war sustainment efforts and reduce enemy ability to safely deploy maritime forces. Similarly, offensive employment of air-delivered scatterable mines can deny or restrict enemy strategic mobility and sustainability efforts.

Operational Employment. Defensive barrier, obstacle, and minefield employment can help protect friendly ports, lines of communications, and key facilities and free combat forces for offensive employment. Offensive employment can protect friendly maneuver while disrupting enemy ability to concentrate or maneuver forces. Barriers and obstacles having operational significance usually differ in scale from those having tactical significance. However, size alone does not make an obstacle operationally significant. At the operational level, their primary use is the restriction of enemy maneuver options or the creation of friendly maneuver options. Mines can also contribute to gaining the air control or air supremacy essential to achieving campaign objectives. Mines can delay efforts to repair damage to air bases caused by immediate effect munitions, thus degrading or denying the base's capability to launch or recover aircraft. Mines can also restrict the deployment of mobile, surface-based air defenses, as well as surface-to-surface systems, because rapid movement in a mined area



increases the risk of a mine encounter. Mines can also disrupt logistic sustainment operations being performed in the enemy's rear area of operations.

Tactical Employment. Employment at the tactical level, such as the creation or countering of barriers, obstacles, or minefields, is normally done to achieve tactical offensive or defensive objectives.

Related Terms

Source Joint Publications

JP 3-15 Joint Doctrine for Barriers, Obstacles, and Mine Warfare

BASE DEFENSE

The local military measures, both normal and emergency, required to nullify or reduce the effectiveness of enemy attacks on, or sabotage of, a base, to ensure that the maximum capacity of its facilities is available to US forces. JP 1-02

General. The base and base cluster (designated when required) are the fundamental building blocks for planning, coordinating, and executing base defense operations. Each Service organizes, trains, and equips forces capable of contributing to the security and defense of the rear area in consonance with legislated Service functions. (See figure below.) The base commander coordinates the forces of the various Service or functional components to best capitalize on their combined capabilities, synergies, and mutual supportiveness, while minimizing the vulnerabilities of each. At the base level, the component in command of a base has overall responsibility for defense of the base; hosted forces from other Service or functional components defend their own facilities and may be tasked to contribute to the overall base defense, commensurate with their capabilities and the circumstances. Medical personnel may only guard their own unit and wounded and sick without jeopardizing their protective status under the Geneva Convention.

Base Cluster Commanders. Base cluster commanders (when designated) are responsible for coordinating the defense of bases within their base cluster and integrating base defense plans into a base cluster defense plan. Their specific responsibilities for base cluster defense include the following:

- Establish a base cluster operations center (BCOC) from available base or cluster assets to serve as the base cluster's tactical operations center and focal point for planning, directing, coordinating, integrating, and controlling base cluster defense activities. This tactical operations center usually serves as both the base defense operations center (BDOC) and the BCOC. An alternate BCOC and base cluster commander will be designated and will have the capability to assume BCOC and/or command functions should the primary facility and/or commander be neutralized. The BCOC will establish connectivity with the joint rear tactical operations center through the rear area operations center or rear tactical operations center (RTOC) as required.
- Provide appropriate facilities and housing for necessary liaison personnel from bases within the cluster.

Base Commanders. The base commanders are responsible for base defense. The forces of components other than their own, assigned to the base primarily for the purpose of local base defense, will be under their operational control. Forces of other Services or functional components assigned or attached to the base for primary purposes other than local base

BASE DEFENSE RESPONSIBILITIES

Base Cluster Commanders

- coordinate the defense of bases within their base cluster
- integrate base defense plans into a base cluster defense plan
- establish a base cluster operations center
- provide appropriate facilities and housing for necessary liaison personnel

Base Commanders

- ensure base defense
- establish a base defense operations center (BDOC)
- establish an alternate BDOC from base resources
- plan for employment of transient forces

Individual Component Commanders

- participate in the preparation of base defense plans
- provide, staff, and operate base defense facilities in accordance with base defense plans
- conduct individual and unit training of assigned forces
- provide appropriate facilities and essential personnel for a BDOC for the base commander
- provide liaison personnel to advise the base commander
- provide for the internal security of the command
- provide housing for the forces under their command
- provide command and control communications systems
- provide health service support for the forces under their command

defense, will support local base defense during an imminent attack or threat of an attack. The base commanders' specific responsibilities for defense of the bases include the following:

- Establish a BDOC from available base assets to serve as the base's tactical operations center and focal point for security and defense. The BDOC will assist with the planning, direction, coordination, integration, and control of base defense efforts.
- Establish an alternate BDOC from base resources or, if base assets cannot support this requirement, designating a headquarters element from units dedicated to the base for its local defense. The alternate BDOC may be located on or off base but must be able to provide the necessary command, control, and communications for base defense if the primary BDOC is neutralized.

- Plan for employment of transient forces by ensuring base defense plans include provisions for augmenting the regularly assigned base defense forces present at the base during an attack or when the base is threatened with attack. In an emergency, the base commander will be considered an area commander insofar as establishing authority and command relationships for base defense are concerned. All other principles governing support provided by a transient force during an emergency to a commander in whose area of responsibility the transient force is located, and the responsibilities of the commanders concerned, are fully addressed in Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)."

Individual Component Commanders. Commanders of tenant forces of each component at a base are responsible for the following:

- Participate in the preparation of base defense plans.
- Provide, staff, and operate base defense facilities in accordance with the base defense plans.
- Conduct individual and unit training of assigned forces, as necessary, to ensure their readiness to perform their assigned tasks in defense of the base.
- Provide appropriate facilities and essential personnel for a BDOC for the base commander and providing liaison and support, as necessary, for the base cluster commander at the BCOC.
- Provide liaison personnel to advise the base commander on matters peculiar to their Service and, if a joint staff is established, to be regular working members of the staff.
- Provide for the internal security of the command.
- Provide housing for the forces under their command.
- Provide command and control (C2) communications systems, to include common-user communications within the command.
- Provide health service support for the forces under their command.

Determining Service Identity of the Base Commander. The Service commander of a base is determined by the classification of the base and by the functions assigned to the individual Services. The Service designated with base command responsibilities provides the C2 structure for base defense operations.

Classification of Bases. The commander of a combatant command will determine (unless determined by higher authority) and announce the classification of bases in his area in accordance with policies established by the Chairman of the Joint Chiefs of Staff. A base may be a single-Service base or a joint base which may be either one in which one Service has primary interest or one in which two or more Services have coequal interest.

Base Clusters. Base clusters can perform a valuable C2 role in security operations and can enhance the support and security of numerous individual bases in an area of operations. Base clusters may be designated when the large number of bases in an area or subarea exceeds the commander's normal span of control; their designation would lead to improved support and security for bases in a localized area; bases are located in such close geographic proximity as to require deconfliction of their respective defense plans; or when directed by appropriate higher authority.

Large, single-Service bases and joint bases that are geographically isolated may be independent of base clusters.

Related Terms

Source Joint Publications

JP 3-10	Doctrine for Joint Rear Area Operations
JP 3-10.1	JTTP for Base Defense

BASING

Basing, whether from overseas locations, sea-based platforms, or continental United States, directly affects operational reach. Operational reach is the distance over which military power can be concentrated and employed decisively. Reach is influenced by the geography surrounding and separating the opponents. It is extended by locating forces, reserves, bases, and logistics forward, by increasing the range of weapon systems, and by improving transportation availability and the effectiveness of lines of communications and throughput. Nevertheless, for any given operation, there is a finite range beyond which the joint force cannot prudently operate or maintain effective operations.

Thus, basing in the broadest sense is an indispensable foundation of joint operational art, directly affecting the combat power that the joint force is capable of generating by affecting such critical factors as sortie and resupply rates. In particular, the arrangement and successive positioning of advanced bases (often in austere, rapidly emplaced configurations) underwrites the progressive ability of the joint force to shield its components from enemy action and deliver symmetric and asymmetric blows with increasing power and ferocity. Basing is often directly affected by political and diplomatic considerations and as such can become a critical junction where strategic, operational, and tactical considerations interact. US force basing options span the spectrum from permanently basing forces in mature, strategically important theaters to temporary sea-basing during crisis response in littoral areas of instability. Bases (including the flexible and responsive capability of sea-basing) are typically selected to be within operational reach of the opponent, where sufficient infrastructure is in place or can be fabricated to support the operational and sustaining requirements of deployed forces, and where they can be assured of some degree of security from enemy attacks. Basing thus plays a vital role in determining the operational approach, which may be conceived of in terms of lines of operations.

Related Terms

operational art; reach

Source Joint Publications

JP 3-0	Doctrine for Joint Operations

BATTLE DAMAGE ASSESSMENT

The timely and accurate estimate of damage resulting from the application of military force, either lethal or non-lethal, against a predetermined objective. Battle damage assessment can be applied to the employment of all types of weapon systems (air, ground, naval, and special forces weapon systems) throughout the range of military operations. Battle damage assessment is primarily an intelligence responsibility with required inputs and coordination from the operators. Battle damage assessment is composed of physical damage assessment, functional damage assessment, and target system assessment. Also called BDA. JP 1-02

Battle damage assessment (BDA) is one of the principal subordinate elements of combat assessment (CA). At the joint force commander (JFC) level, the CA effort should be a joint program, supported at all levels, designed to determine if the required effects on the adversary envisioned in the campaign or operation plan are being achieved by the joint force components to meet the JFC's overall concept. The intent is to analyze what is known about the damage inflicted on the adversary with sound military judgment to try to determine what physical attrition the adversary has suffered; what effect the efforts have on the adversary's plans or capabilities; and what, if any, changes or additional efforts need to take place to meet the objectives of the current major operations or phase of the campaign.

BDA is used to update the enemy order of battle. Accurate BDA is critical to determine if the target should be reattacked. BDA should include information relating BDA to a specific target (e.g., target coordinates, target number, mission number, munitions expended, target description); time of attack; damage actually seen (e.g., secondary explosions or fires, enemy casualties, number and type of vehicles/structures damaged or destroyed); and mission accomplishment (desired effects achieved).

Related Terms

combat assessment

Source Joint Publications

JP 2-0	Joint Doctrine for Intelligence Support to Operations
JP 3-09.3	JTTP for Close Air Support (CAS)

BATTLEFIELD COORDINATION ELEMENT

An Army liaison provided by the Army component commander to the Air Operations Center (AOC) and/or to the component designated by the joint force commander to plan, coordinate, and deconflict air operations. The battlefield coordination element processes Army requests for tactical air support, monitors and interprets the land battle situation for the AOC, and provides the necessary interface for exchange of current intelligence and operational data. Also called BCE. JP 1-02

The Army component commander establishes a Battlefield Coordination Element (BCE) to act as the interface between the component commander and the joint force air component commander or the Air Force component commander. The BCE is collocated with the joint air operations center (JAOC) or the Air Force component air operations center. The BCE processes land force requests for air support, monitors and interprets the land battle situation for the JAOC, and provides the necessary interface for the exchange of current operational and intelligence data. The BCE expedites the exchange of information through face-to-face coordination with elements of the JAOC and coordinates air defense and airspace control matters. The BCE is organized into sections which are incorporated throughout the JAOC (e.g., plans, intelligence, operations, fusion, air defense artillery and Army airspace command and control, and airlift).

Related Terms

joint air operations center

Source Joint Publications

JP 3-56.1	Command and Control for Joint Air Operations

BEACHHEAD

A designated area on a hostile or potentially hostile shore that, when seized and held, ensures the continuous landing of troops and materiel, and provides maneuver space requisite for subsequent projected operations ashore.
JP 1-02

General. A beachhead is the physical objective of an amphibious operation. The commander, landing force, determines possible beachheads for each designated landing site and notifies the commander, amphibious task force, of the selections in order that they may be incorporated in the designation of tentative landing areas. A beachhead includes amphibious task force and landing force objectives, as well as one or more landing sites. In some cases, several potential beachheads, with associated landing sites and objectives, may be developed for evaluation.

Shoreline Configuration. The configuration of the coastline is an important factor to be considered in the selection of a beachhead. Shorelines have three primary forms: convex, concave, and straight. Combinations of the three types are possible. The significance of each of these in selection of the beachhead is discussed below.

Convex Shoreline. The convex shoreline in the form of large promontories or deltas causes dispersion of hostile defensive forces and prevents effective enfilade fire on the landing beaches. Except for its generally inferior hydrographic characteristics, convex is the most favorable coastal formation from the attacker's point of view.

Concave Shoreline. The concave shoreline, particularly in the form of a bay or reentrant, is unfavorable because it provides opportunity for the convergent massing of enemy fires at any point in the area and permits establishment of an organized system of crossfires that are extremely disadvantageous to the attacker. Conditions such as the existence of sheltered water and favorable landing conditions may dictate the selection of a concave shoreline as a place of landing despite its unfavorable characteristics. In such cases, particular consideration is given to the promontories that form the shoulders on either flank of the landing beach and provide naturally advantageous positions for defensive weapons.

Straight Shoreline. The straight shoreline has no prominent indentations or promontories and is relatively less favorable because it lends itself to enemy enfilade fire. Straight shoreline represents a compromise between the advantages of the convex shoreline and the disadvantages of the concave shoreline.

Related Terms

amphibious operation

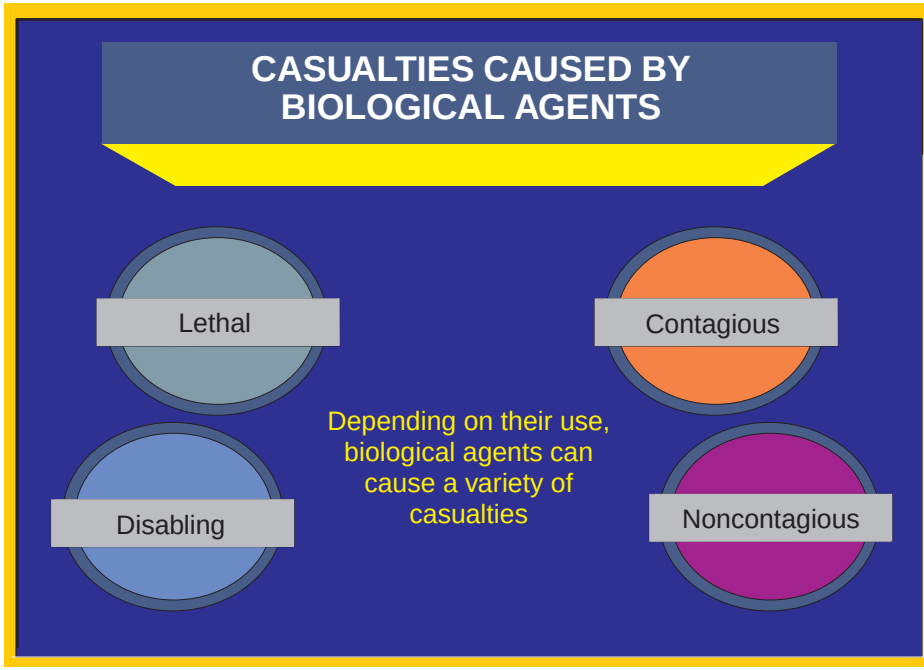
Source Joint Publications

3-02.1 Joint Doctrine for Landing Force Operations

BIOLOGICAL AGENT

A microorganism that causes disease in personnel, plants, or animals or causes the deterioration of materiel. JP 1-02

Threat doctrine considers biological agents as weapons of mass destruction. Such agents, including infectious microorganisms and toxins, are capable of widespread, mass infection or intoxication. These agents, depending on intended use, can cause lethal, disabling,



contagious, or noncontagious type casualties. (See figure above.) These agents could be effectively employed against large rear area objectives or against command, control, communications, computers, and intelligence or other critical targets.

Certain factors may significantly increase the probability of use. Should a potential threat consider that initiating biological warfare was worth the risk, the employment of biological agents may provide a way of causing asymmetry on the battlefield. Further, genetic engineering can selectively improve toxicity, lifespans, or dissemination efficiencies; defeat detection and warning systems; or make verification of use virtually impossible.

The intentional use of these disease-causing organisms (pathogens), toxins, or other agents of biological origin is designed to weaken resistance to attack and reduce the will to wage war. Historically, biological warfare has primarily involved the use of pathogens to sabotage food and water supplies and spread contagious disease among populations. These pathogens have generally fallen into one of the following categories:

- naturally occurring, unmodified infectious agents;
- toxins, venoms, and their biologically active fractions;
- modified infectious agents;
- bioregulators and physiologically active compounds.

Biotechnology is a tool for the production of biological warfare agents. Naturally occurring infectious organisms can be made more virulent, drug resistant, and can be manipulated to render protective vaccines ineffective. Such developments could greatly complicate the ability to detect and identify biological warfare agents and the ability to operate in areas contaminated by these agents. The causative agents for anthrax, tularemia, plague, and cholera, as well as botulinum toxin, staphylococcus, enterotoxin, and mycotoxin, are believed to have been developed as biological warfare agents by potential US adversaries.

Related Terms

biological warfare; nuclear, biological, and chemical defense operations

Source Joint Publications

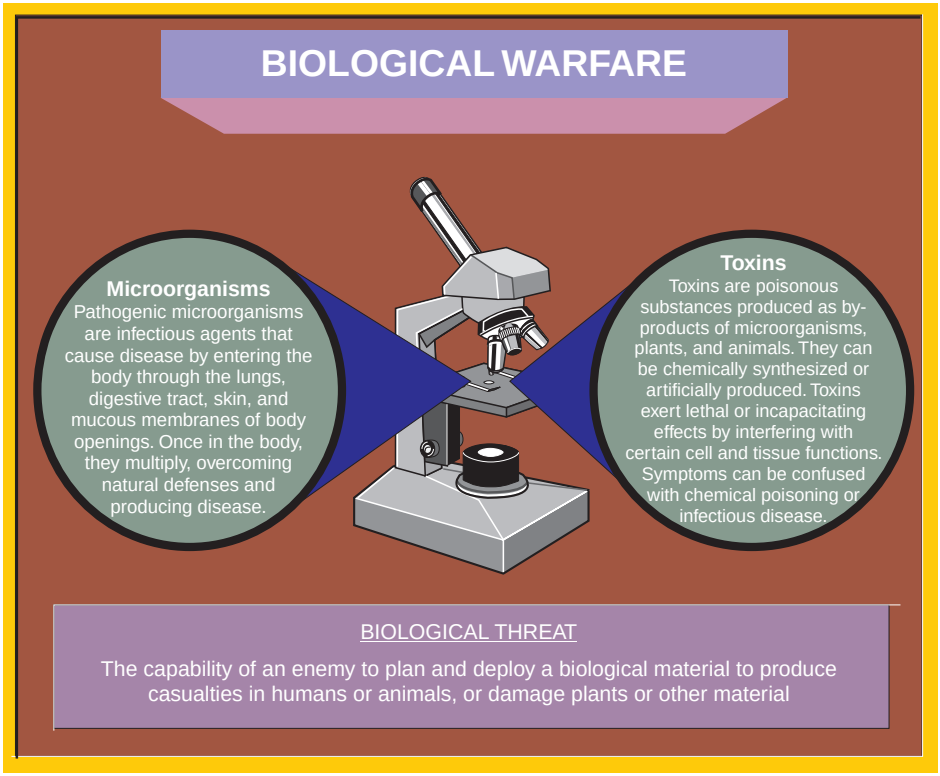
JP 3-11	Joint Doctrine for Nuclear, Biological, and Chemical (NBC) Defense
JP 4-02	Doctrine for Health Service Support to Joint Operations

BIOLOGICAL WARFARE

Definition of "biological warfare" = See biological operation.
biological operation
Employment of biological agents to produce casualties in personnel or animals and damage to plants or materiel; or defense against such employment.
JP 1-02

General. A biological threat is the capability of an enemy to plan and deploy a biological material to produce casualties in humans or animals or damage plants or other material. A biological agent is a microorganism or biological toxin intended to cause disease, injury, or death in people, plants, or animals or deterioration of material. A biological threat is the capability of an enemy to deploy these types of agents.

Microorganisms. (See figure below.) Pathogenic microorganisms are infectious agents that cause disease in personnel, animals, or plants by entering the body through the lungs, digestive tract, skin, and mucous membranes of body openings. Once they enter the body, microorganisms multiply, overcoming the body's natural defenses, and produce disease.



Toxins. Toxins are poisonous substances produced as by-products of microorganisms, plants, and animals. Some toxins can be chemically synthesized, and some can be artificially produced with genetic engineering techniques. Toxins exert their lethal or incapacitating effects by interfering with certain cell and tissue functions. The signs and symptoms of toxin poisoning can be confused with both chemical poisoning and infectious diseases.

Enemy Biological Weapons Employment. Delivery systems for biological warfare agents most commonly generate invisible aerosol clouds with particles or droplets that can remain suspended for extensive periods. The major risk is retention of inhaled particles. To a much lesser extent, particles may adhere to an individual or to clothing. Vectors, which are organisms (e.g., insects) that transmit pathogens, may be involved in the spread of a disease. The effective area covered varies with many factors, including wind speed, humidity, and sunlight. In the absence of direct evidence of an attack, the first clue would be mass casualties fitting a clinical pattern compatible with one of the biological agents; however, diagnosis may be difficult because of the possible use of multiple pathogens. Toxins, although nonliving, affect the body in a manner similar to chemical warfare agents. However, toxins are generally much more potent. Mucous membranes, including the eyes, are also vulnerable to many biological warfare agents. Potential targets of biological agents include the following:

- rear area command centers and key facilities;
- troop assembly areas;
- ports of debarkation or supply points, airfields, and industrial centers prior to the outbreak of hostilities;
- naval operations near land;
- forward combat areas and logistical areas;
- any area that presents a likely target for a terrorist or insurgent group.

Related Terms

biological agent; nuclear, biological, and chemical defense operations

Source Joint Publications

JP 3-11 Joint Doctrine for Nuclear, Biological, and Chemical (NBC) Defense

BOUNDARY

A line which delineates surface areas for the purpose of facilitating coordination and deconfliction of operations between adjacent units, formations, or areas.
JP 1-02

Boundaries define surface areas to facilitate coordination and deconfliction of operations. In land and sea warfare, a boundary is a line by which areas between adjacent units or formations are defined. A naval boundary may be designated for seas adjacent to the area of land conflict to enhance coordination and execution of naval operations.

Joint force commanders (JFCs) may use lateral, rear, and forward boundaries to define areas of operation for land and naval forces. Such areas are sized, shaped, and positioned to enable land or naval force commanders to accomplish their mission while protecting deployed forces.

Theater air sorties are not constrained by land boundaries, per se. However, because the airspace above surface areas is used by all components of the joint force, JFCs promulgate airspace control measures to deconflict the multiple uses required of this space. Boundaries may require relatively frequent adjustment based on the actual and projected rate of maneuver and the operational environment.

Related Terms

control and coordinating measures

Source Joint Publications

JP 3-0 Doctrine for Joint Operations

BRANCHES AND SEQUELS

No plan of operations can be projected with confidence much beyond the initial stages of the operation. Commanders build flexibility into their plans to preserve freedom of action in rapidly changing conditions. Branches and sequels directly relate to the concept of phasing. Their proper use can add flexibility to a campaign or major operation plan.

Branches are options built into the basic plan. Such branches may include shifting priorities, changing unit organization and command relationships, or changing the very nature of the joint operation itself. Branches add flexibility to plans by anticipating situations that could alter the basic plan. Such situations could be a result of enemy action, availability of friendly capabilities or resources, or even a change in the weather or season within the operational area.

Sequels are subsequent operations based on the possible outcomes of the current operation — victory, defeat, or stalemate. At the campaign level, phases can be viewed as the sequels to the basic plan.

Related Terms

arranging operations

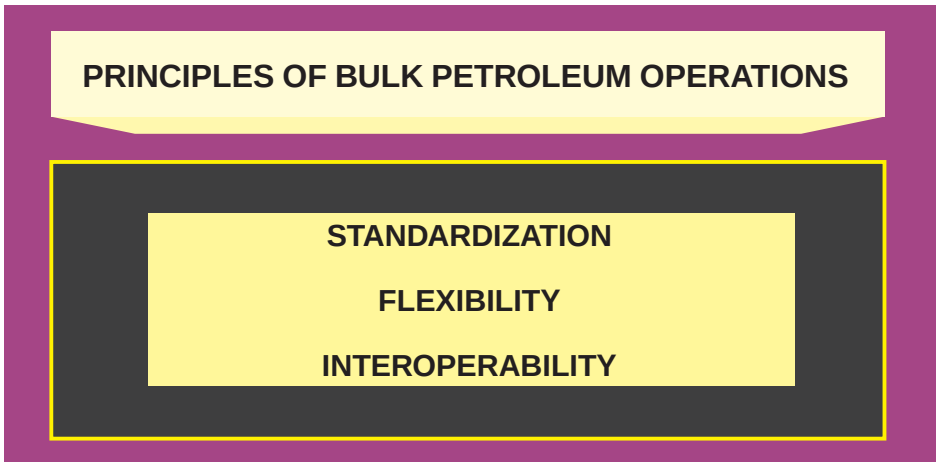
Source Joint Publications

JP 3-0 Doctrine for Joint Operations

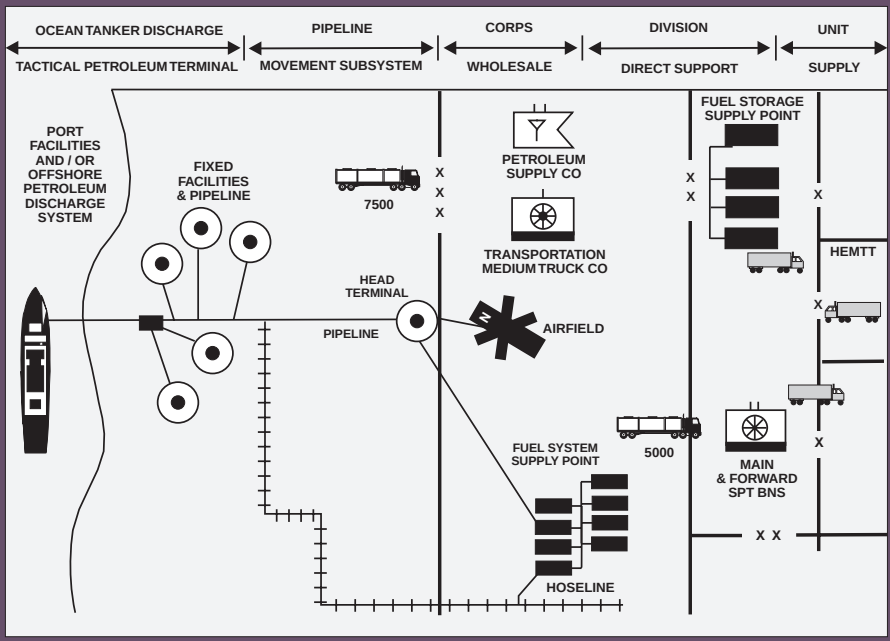
BULK PETROLEUM

Bulk petroleum is common to both commercial and military operations. It requires special handling and storage and has a demand significantly larger than other supply classes. For these reasons, any viable support concept must incorporate the principles of standardization, flexibility, and interoperability. (See the figures below.)

The Department of Defense (DOD) components should minimize the number of bulk petroleum products that must be stocked and distributed, plan to use fuels readily available



BULK PETROLEUM DISTRIBUTION SYSTEM IN A DEVELOPED THEATER



worldwide, and minimize the military-unique characteristics of DOD fuels. The determination of required fuel is dependent upon the types of equipment deployed and must also take into account the maturity of the theater's petroleum production and distribution infrastructure.

Military weapon systems and equipment must be capable of using alternate fuels.

Military fuels handling equipment and connectors must be interoperable among Services and, where possible, with allies and coalition partners. This interoperability allows timely weapon system support in joint operations without duplication of effort and material. This concept is also extremely important in combined operations where one nation may be designated as lead for petroleum logistics. Consequently, to foster interoperability, DOD fuels handling equipment should be of common or compatible design, material, and size whenever practical.

Bulk petroleum inventory consists of war reserve materiel stocks and primary operating stocks. Both inventories are sized based on a concept of having enough fuel on hand until resupply can be assured. This approach minimizes stock levels while maintaining an acceptable degree of support and sustainability across the range of military operations. Inventory levels are independently determined for each location or, where practical, for a defined area.

Related Terms

Source Joint Publications

JP 4-03 Joint Bulk Petroleum Doctrine

Intentionally Blank